

NEW
THERAPEUTICAL
AGENTS.
MORSE.



GEO. S. DAVIS, PUBLISHER, DETROIT

22. A. 193

C. E. Miles.

New Therapeutical Agents.

— BY —

WILLARD H. MORSE, M. D.



DETROIT, MICH., U. S. A.
GEORGE S. DAVIS, MEDICAL PUBLISHER.
1882.

15168

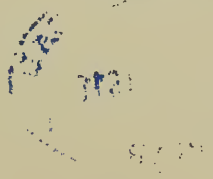
Entered according to the act of Congress, in the year 1882, by

GEORGE S. DAVIS,

In the Office of the Librarian of Congress, at Washington, D. C.



TO MY OLD PRECEPTOR,
ALMON N. ALLEN, M. D.,
WHO TAUGHT ME
THE FIRST PRINCIPLES OF THE SCIENCE
OF MEDICINE,
THIS WORK IS AFFECTIONATELY
INSCRIBED.



PREFATORY.

THERE is no reason why a new work on *Materia Medica* and Therapeutics should be given the profession. Medical literature is unusually elaborate in its works on this branch of our science, and in the present state of medicine there is really nothing left to be desired. Stillé, Bartholow, Ringer and Wood, have written well. Others than they have ably seconded and supplemented that which they have done. The task is complete. We understand the *materia medica* to-day better than we have ever done before. We are going on unto perfection in therapeutical knowledge. The future of the science is of the far distance. The present is the objective of the past. We have yet much to learn. Understanding the principles of the action of old-established medicines, there will come to us gradually new developments and discoveries. For these we must be content to work and wait. As Bartholow has remodelled the structure built by Stillé, so in another decade Bartholow is to be remodelled to suit the times. Once in a generation may come revision, and that once is quite often enough.

Within the time of recent years there has grown up many promising additions to the old *materia medica*. We have become used to the phrase "new remedies," and know of them but vaguely. Yet have they a place. Thirty years ago it was accounted sin to venture the introduction of new medicines. But nature never willed that we should sit in the seat of our fathers, and advancement, the outcome of aspiration, is the watchword of the century. It is the vegetable, animal, and mineral particles that come to constitute rock-structure, and every particle is of value. So in *materia*

medica, every remedial agent is of account. The arrangement is republican; iron, and quinine, and mercury, are on the same level with *rhus aromatica*, *jaborandi*, and *areca*. It is but just that *damiana* and *grindelia robusta* should be as well-known and of as much importance as are *belladonna* and *physostigma*. One is as good as the other. In its therapeutics as a nerve sedative *gelsemium* is as valuable as opium, but who knows *gelsemium*? Five-flowered gentian is as available a substitute for quinine as is arsenic, but who is acquainted with five-flowered gentian?

It is therefore patent that the coming treatise on *materia medica* must be in the real sense of the word, cosmopolitan. It must have democracy stamped on its face. One agent must be deemed as important as another. Phosphorus must stand side by side with boldo, and *cascara amarga* be as worthy of a place as iodide of potassium. The time for the composition of such a work should not yet be. But the time is coming when it is to be done. Before it shall be accomplished it is but meet that the present stage of our knowledge of the new additions to the *materia medica* should be shown.

It was with this purpose in view that I have written this work. My aim has been to show to the profession that which is known of those new remedies which are not known in prominent places in the *materia medica*, if at all, but which in time to come shall take positions of positive worth. In other words, all that I claim for this book is that it is an introduction of the profession to the NEW. It is not supplemental; it is but prefatory.

I have made errors of omission. Some valuable new remedies may not have been noticed. But I beg something more than tolerance. The old treatises on *materia medica* were imperfect, but were the foundation-stones for the elaborate text-books of to-day. So of this work; though imperfect, it may be at least an index to that which is to be. I do not venture to think that this work is fitted to marry with works that in every sense are text-books that the coming treatise on *materia medica* may be produced. But ere Ringer and Bartholow have come to the estate of green old age their noble works shall be united with one as noble, and of the union of new and old shall be born the New *Materia Medica*.

The author has gleaned from the works of all branches of our profession, finding here a little, and there a little out of which to

weave the superstructure of the book. Himself a regular practitioner, he has countenanced nothing that savors of homœopathy, eclecticism, or quackery, only on the broad ground of general value.

If a new field has been explored, if a new stone has been laid upon the pinnacle of our professional tower, if a new hope has been awakened in hearts used to things old, then is the author satisfied with his imperfect task.

WILLARD H. MORSE, M. D.

PITTSFIELD, MASS., 1882.

INTRODUCTION.

FROM the three kingdoms of nature man can derive that which shall cure or alleviate all diseases. The all-wise Power has not given disease supreme strength. It is a saying worthy of all acceptance, that for every disease there is a remedy. The proverb is old, and has been quoted almost jeeringly for centuries. Latterly there has been advancement, and the application of newly discovered or revived remedies, has done its part toward coloring the old theory. Within the past twenty years, civilization, reaching out its hands, has gathered to man many new remedies. With discoveries, land surveys, and settlements, men have come into closer contact with the hidden newness of nature, and in hitherto unexplored localities, and in our own forests and fields, medicines before unknown are found. The forests of the Amazon and the mountains of Nevada have given us of their treasures, and from California and the wilds of Alaska have come drugs destined to a popular place. The east has contributed of its opulence, and out of the north the worth of her fields has been sent. The *Materia Medica* of to-day is rich in its treasures, and its wealth is ever increasing.

In the years of the past, certain remedies have for a time enjoyed a place in the estimation of the profession, only at length to be debased and almost forgotten, and all because they have not been studied and tried. Here and there, the world over, physicians have taken these remedies in hand, and though the profession in general have despised them, have approved them of worth. To restore these lost remedies to professional notice, and to speak their praise or name their faults, has been one of the objects of this work. The newness of the new is brother to the newness of the old.

In doing this work, the author has had much valuable assistance from the many to whom he now returns thanks and best acknowledgements.

SCHEMA.

THE author has long felt that our knowledge of *Materia Medica* can be the better furthered by advancing therapeutics to the highest position, and putting the essential *Materia Medica* subordinate to that position. We study the science to understand its power. The artisan does not care so much for his tools and instruments, as he does for what those tools and instruments can do. It is the same with the physician. He cares to know to what diseases a particular remedy can be applied, rather than to know the material of the remedy. Especially does he desire to magnify therapeutics, when he takes up a remedy. Though he may not have judged rightly, it has seemed to the author that the only rational arrangement of which the *Materia Medica* will admit of, is that which presents its therapeutics at a glance. Though the classification of this book may in some of its relations be imperfect, it is possessed of the merit of simplicity, and is arranged according to application.

The ratio of classification is in close co-relation to the connection. The medicines are presented under order of the diseases to which they are applicable. The titles of classification are the diseases. In case it is the first mention made of a medicine as it appears in its class, a detailed description follows. But if that description has already been given under a previous heading, it is merely referred to by name. Thus it only remains for the most superficial glance to determine what remedies are applicable to a given disease—those most popular, or proven best, being always given the precedence. To make this scheme more perfect, reference is had by title to other than those which we designate as new remedies, and which are already well known. To avoid confusion, the "*new* remedies" are italicized; but to preserve the true democratic spirit of arrangement, the "*old* remedies" are named only according to their importance, and in interdependent relation to the new remedies.



ABORTION.

1. *Viburnum Prunifolium*. (See Note.)

DESCRIPTIVE NOTE.

***Viburnum Prunifolium*.**

Synonyms:—Black haw, sloe, sloe-leaved viburnum.

Habitat:—Southern and Central Western States.

Position:—Unofficial.

Medicinal Portion:—The bark.

Preparations:—Fluid extract, dose, ʒ ss–j. t. d.

Botanical Details:—Natural Order, *Caprifoliaceæ*. An erect, tree-like shrub, growing to a height of 8–15 feet, and found in woods, thickets, etc. Its branches are spreading, and are covered with short lateral spines or burrs. The leaves are oblong-ovate, 1–2 inches long, smooth. Cymes are about 3 inches wide, terminal in spurs. Fruit is $\frac{1}{3}$ – $\frac{1}{2}$ inch long, bluish plum color, edible. It flowers in May.

Physiological Properties:—Black haw is astringent, alterative, diuretic, and tonic. Several years ago it established for itself a reputation of having a special influence on the uterus, as a preventive of abortion. Without seeking to corroborate or try these claims, members of the profession having some prominence, ridiculed the idea. For the time the drug suffered eclipse, until at length it proved its worth, and in its revival made its better reputation. That it is prophylactic of miscarriage is now a notable truth.

Therapeutical Applications:—In the words of Dr. Phares, black haw "is valuable in preventing abortion and miscarriage, whether

habitual, * * * * from accidental cause, or from criminal drugging." The dosage is a teaspoonful every half-hour till labor is arrested. I advise every physician to keep the medicine, and to rely upon it.

In all uterine disorders where there is loss of blood, black haw is serviceable. In this connection we may quote menorrhagia, metrorrhagia, dysmenorrhœa, and especially the flooding after abortion or natural parturition.

Dr. Phares has also said, that black haw may be used for aphthæ, ophthalmia, diarrhœa, ulcers, and urinary diseases, but nothing of this is proven. The drug belongs in the department of gynecological therapeutics, and there has its merits.

ACIDITY OF STOMACH.

- | | |
|--------------|-------------------|
| 1. Bismuth. | 4. Mineral Acids. |
| 2. Alkalies. | 5. Magnesia. |
| 3. Ammonia. | |
-

ACNE.

- | | |
|-----------------------|--------------------------------|
| 1. Sulphur. | 7. Alkaline Lotions. |
| 2. Phosphorus. | 8. Mercury. |
| 3. Saline Cathartics. | 9. Goa Powder. (See Note.) |
| 4. Carbonate of Soda. | 10. Berberis Aquifolium. |
| 5. Bismuth. | 11. Rumex Crispus. (See Note.) |
| 6. Arsenic. | |
-

DESCRIPTIVE NOTES.

Goa Powder.

Synonyms.:—Pulvis ararobæ, bitter angelim, andira araroba.

Botanical Details.:—Goa powder is the product of a tree of the family Cæsalpinaceæ. Aquilar, however, holds that it is legu-

minous, and of the genus Andira. Hence the name, Andira ararobæ. Botanical description wanting.

Medicinal Portion:—A resinous exudation.

Official Appearance:—A rufous powder.

Habitat:—Bahia, especially southern Bahia.

Chemical Composition:—The active agent of goa powder is a combination of chrysophanic acid with other bodies, and is named chrysarobin. This exists as 80 per cent. of the weight of the powder.

Preparations:—Unofficial.

Antagonists and Incompatibles:—Not known.

Synergists:—Sulphur, arsenic, mercury.

Researches:—The araroba is an indigenous Bahian tree. The powder exists in fissures in the trunk, and is obtained by splitting the wood. Its nature is that of an oxidized resin.

Physiological Action:—The powder is used in an ointment or paste. It stains the skin brown, and serves to excite an inflammation. Not only is it an irritant, but primarily it is a local stimulant, and a parasiticide.

Therapeutical Applications:—The chrysophanic acid of goa powder renders the drug of value in cutaneous diseases, as acne, psoriasis, ring-worm, scurvy, etc. In tropical countries, where the loathsome character of skin diseases is notorious, it has been tried and always found true. The medicine is given internally as an emetic purge, or used externally in ointment. Its dose as an internal remedy is not named, and its value is unmarked. As an ointment, the proportion of powder should be ten per cent., and the application should not be continued for more than three days. The result is a destruction of the diseased skin, followed by cicatrization, and succeeded by healthy skin. In syphilitic skin disease, Reamont recommends it as an adjuvant to a specific course. Epithelial cancer of the skin finds in goa powder a remedy of value. In epithelioma of the mucous membrane, it is, however, harmful. It has the promise of a reputation in lupus; and in eczema is destined to demand a trial.

Rumex Crispus.

Synonyms:—Yellow dock, rumex, sour dock.

Botanical Details :—Sexual system, Hexandria Trigynia. Natural Ord., Polyganaceæ. The calyx is tri-leaved, with three convergent petals. Bears one three-sided and indented seed, without covering. The stigmata are multifid. The root is perennial, spindle-shaped, and yellow. The stem is annual, three feet high, furnished with smooth, bluntly-lanceolate leaves, waved on their margins. The flowers are in racemes, small and greenish.

Medicinal Portion :—The root.

Official Appearance :—The yellow dock is of a dirty yellow color, the ligneous portion being more yellow than the cortex.

Derivation of Name :—Rumex is derived from *rumo*, "I suck," in allusion to the Romans sucking this root to allay thirst (!) "Dock" is a Saxon word derivative of *doce*.

Habitat :—Fields and roadsides, America and Europe.

Chemical Composition :—Rumex crispus contains a peculiar principle supposed to be rumicin, together with starch, tannin, resin, mucilage, and salts. Rumicin is in its composition infected with chrysophanic acid. Associated with it is a bitter alkaloid, not yet fully distinguished.

Historical Researches : Originally a European, but now an indigenous American weed, yellow dock is familiar to all who have passed any length of time in the country. It is commonly used in domestic root beer, and is in the armamentarium of every old lady who "believes in yarbs." The taste of the fresh root is bitter, and slightly astringent. It yields its virtues by infusion.

Preparations :—Unofficial. It is given in both infusion and powder.

Antagonists and Incompatibles :—Those agents which promote destructive metamorphosis are theoretically antagonistic.

Synergists :—Arsenic, cinchona, iron, eucalyptus, bismuth; the simple bitters, hydrastis, etc.

Physiological Action :—In the mouth and fauces yellow dock provokes action of astringency, and leaves a lasting bitter taste. It favors promotion of the appetite, and increases capacity for digestion. It has not lost its astringency when it reaches the intestines, and is there an astringent laxative not unlike rheum? Its principles are slow to diffuse into the blood, but have an induced permanency there. Its tonic powers are not more fixed than those of hydrastis, but as an alterative it is of high worth.

Therapeutical Applications:—*Rumex* is useful in acne, favus, ichthyosis, the syphilitic skin diseases, scurvy, psora, and other cutaneous disorders. It is also recommended in syphilis and scrofula, as well as in carcinoma (?) It exerts its curative action by its tonic and alterative properties. It is given in doses of two fluidrachms of the infusion, frequently repeated. It is also used externally as an ointment, cataplasm, and decoction. There is resident in the root a certain power as a blood purifier.

ADENITIS.

- | | |
|---|---|
| 1. Bromide of potassium. | 4. <i>Clematis erecta</i> . (See Note.) |
| 2. Iodine and the iodides. | 5. <i>Agrimonia eupatoria</i> . (See Note.) |
| 3. <i>Alnus rubra</i> , seu <i>serrulata</i> .
(See Note.) | 6. <i>Fel bovinum</i> . (See Note.) |

DESCRIPTIVE NOTES.

Alnus Rubra.

Synonyms:—*Alnus serrulata*, alder.

Habitat:—The United States.

Botanical Details:—Order, Betulaceæ. Fam. *Alnus*. A perennial shrub. Stems grey; leaves alternate, obovate, serrated, smooth, and with a glutinous surface. Flowers in May, and their beautiful tassels of gold and white are among the first to appear in spring-time.

Family Relations:—*A. urcana* (tag alder), *A. glutinosa*.

Chemical Composition:—The active principle of *alnus* is alnin, analogous to tannin.

Preparations:—Unofficial.

Synergists:—Agents which contain tannin.

Physiological Properties:—*Alnus* is astringent, and a simple bitter.

Therapeutical applications:—*Alnus* relieves adenitis, especially the laryngeal form. Topically to ulcers and wounds, the fluid extract is astringent and hæmostatic.

Clematis Erecta.

Synonyms:—*Flammula jovis*, upright virgin's bower.

Habitat:—Indigenous to Europe.

Botanical Details:—Natural Order, Ranunculaceæ; Sex. Syst., Polyandria Polygynia. A perennial.

Medicinal Portion:—The leaves, flowers and seeds.

Chemical Composition:—Analysis of the fresh root demonstrates the existence of an acrid principle.

Preparations:—The infusion is commonly used.

Physiological Action:—The taste of this plant is acrid and fiery and it is liable to produce intense irritation. Drying diminishes the acrimony. Its properties are diuretic and diaphoretic. It has a tendency to action on the glands.

Therapeutical Applications:—This remedy is curative of adenitis, and deserves a good reputation. Störck names it as useful in syphilis. The same authority has used the leaves as an application to foul ulcers. It is a German remedy for Bright's disease, where its diuretic power is favorably exerted. In acute febrile disorders its action as a diaphoretic is impressive.

Agrimonia Eupatoria.

Synonyms:—Agrimony, stickwort, cocklebur.

Habitat:—Fields and borders of woods universally.

Medicinal Portion:—All parts of the plant.

Botanical Details:—Natural Order, Rosaceæ; Sex. Syst. Icosandria Digynia. The stem is hairy, one, two, or three feet in height. Leaves alternate, sessile, pinnate. Flowers small, in long, yellow spikes. Perennial. Floral season, July to August.

Physiological Action:—This herb has a peculiar bitter and aromatic taste. Its properties are astringent, bitter, and slightly alterative.

Therapeutical Applications:—The astringency of agrimony makes it of good effect in bronchial disorders. For the treatment of adenitis it may be used with advantage. It has been employed in passive hemorrhages, and scrofula. In nephritis, jaundice, renal calculi, and in cutaneous disorders it is popularly used. The American Indians have used the herb in fevers.

Doses:—The powder, dose ʒj—ʒjv. Tincture, dose ʒj—ʒij. Fluid extract, dose ʒss—ʒj.

Fel Bovinum.

Synonyms:—Ox gall, fel tauri, bile of the ox.

Composition:—Ox gall is a viscid greenish fluid, of a bitter taste and nauseous odor. It contains (Berzelius) bilin, cholepyrrhin, mucus, extractive matters, fatty matter, sodium in oleate, margarate, and stearate, earthy salts. The intimate chemical anatomy of ox gall is full of interest, and has been well written.

Physiological Action:—For centuries ox gall has had many uses. Among these properties in repute are these;—tonic, laxative, emmenagogue, detergent, cosmetic, oxytocic, stomachic, antitalgic, and anthelmintic. It increases the biliary secretion.

Therapeutical Applications:—By far its most important use is externally for the cure of adenitis, applying diligently. Bonorden brought it to notice as remedial of pannus, staphyloma, and corneal opacity, and it is put to frequent use in these and other optical diseases. Its other uses are indicated by its physiological reputation, though some of these are more or less mythical.

ALBUMINURIA.

- | | |
|--|--|
| 1. <i>Jaborandi.</i> | 12. Chloride of gold. |
| 2. Milk, proper diet. | 13. Turpentine. |
| 3. Salines. | 14. Iodide of potassium. |
| 4. Hydragogue cathartics. | 15. Gallic acid. |
| 5. Digitalis. | 16. <i>Mango.</i> (<i>Vide Albuminuria.</i>) |
| 6. Hot-air bath, counter irritation. | 17. Bitartrate of potassa. |
| 7. <i>Parsley.</i> (<i>Vide amenorrhœa.</i>) | 18. <i>Clematis erecta.</i> |
| 8. Iron. | 19. <i>Damiana.</i> |
| 9. Opium. | 20. <i>Helonias dioica.</i> |
| 10. Skim-milk. | 21. <i>Rhus aromatica.</i> |
| 11. Iodide of arsenic. | |
-

ALCOHOLISMUS.

- | | |
|--------------------------------------|---|
| 1. <i>Coca.</i> (<i>See Note.</i>) | 4. Oxide of zinc. |
| 2. Bromide. | 5. Opium. |
| 3. Capsicum. (<i>See Note.</i>) | 6. <i>Kava-Kava.</i> (<i>See Note.</i>) |

DESCRIPTIVE NOTES.

Coca.

Synonyms—Coca erythoxylon.

Family Relations—The violaceæ.

Derivation of Name—"Coca" is a Bolivian name. "Erythroxylon" means, *erythro* red, *xylon* wood, "red wood."

Botanical Details—Coca is a plant of the natural order Violaceæ. It is a shrub six feet high, with bright green leaves, about the size and shape of those of the cherry, oval pointed, and on delicate foot stalks. The flowers are of a pearly white color. Fruit, a small, red-scarlet berry.

Medicinal Portion—The dried leaves.

Official Appearance—The color of the coca of commerce is a pale green. The leaves are shrivelled by drying.

Habitat—South America. Wild and cultivated.

Chemical Composition—Coca contains tannin, resin, an aromatic and a bitter principle, chlorophyll, salts of lime, and a substance not unlike white wax.

There is also resident an alkaloid, which is named cocaine. This alkaloid occurs in translucent, prismatic crystals of a bitter taste, and inodorous; melting at 208° F.; soluble in alcohol, water, and ether. It is a complex substance, and its formula is $C_{32}H_{20}NO_4$. It resembles caffeine and theine.

Besides cocaine, there exists another alkaloid, uncrystallizable. This principle may be but changed cocaine. Lossen heated cocaine with muriatic acid, and obtained benzoic acid and a new base, ecgonin. Niemann succeeded in isolating a volatile odoriferous substance, and cocatannic acid.

Preparations—Unofficial. An infusion is prepared, and Messrs. Parke, Davis & Co., of Detroit, have manufactured a fluid extract; dose, 3 ij-iv. The Bolivian Indian uses it as a masticatory. There is a tincture of coca.

Antagonists—Alcohol, opium, tobacco, chloral, conia, bromides, ether, etc.

Synergists—Tea, coffee, maté, etc.

Physiological Actions—Coca increases the action of the heart to four times the normal standard, in this respect having double the

power of tea or coffee. There is cardiac palpitation, pulse 120 to 140, headache, vertigo, and increased arterial activity. It also produces gentle nervous excitation, eventuating in a feeling of satisfaction, intellectual vigor, gay delirium, and promotion of cheerfulness. Muscular strength is apparently increased, and is a great feature of the intoxication. After this there follows a sense of happiness, and perfect laziness. The effect lasts but a short time, and there is no after debility. The taste is bitter, and the bitterness produces salivation. A sense of warmth is imparted to the stomach. Tinnitus aurium occurs. Pupils dilated. Speech becomes thick. Taste blunted for some time after use of coca. Desire for the drug obtains for some time after using it. In large doses it produces watery stools of a highly offensive odor. During its use hunger and thirst are suspended, the drug acting as a nutrient.

Therapeutical Applications—The Indians use coca leaves for every external malady, from a simple cut to a carbuncle, and for neuralgia and headache. They also prize it as a remedy for dyspepsia, flatulence, and colic. Mantegazza employed it successfully in typhus, scorbutus, gastralgia, anæmia, enteralgia, and to assist digestion. Fuentes has used it for intermittents, and as a prophylactic remedy for syphilis. Julian asserts that it is a remedy for jaundice and hypochondriasis.

By restraining tissue metamorphosis, coca, according to Ringer, is valuable in the treatment of febrile disorders. In the same measure it is useful in phthisis. It is uncertain as a hypnotic, but as an anodyne and antispasmodic is of no mean worth. Travelers who have used it for that purpose, recommend it as a remedy for cholera and cholera morbus. Fauvel cites it as a remedy in granular pharyngitis. In convalescence from acute disorders, wasting diseases, and general debility, coca is of great value for its power of sustentation.

Nothing is more common than for public speakers, riflemen, and athletes to evince a state of nervous fright when called upon to attend to their duty. The entire nervous system is in a tremor. Failure stares the man in the face, and disgrace seems imminent. In the moment he seeks to find solace in alcoholic drinks, until stupefied and tortured by the evil, he finds his occupation a lost attempt. In such cases as these—and there are many of them—coca quiets the tense-strung nerves, until both the mental and physical excitement is subdued. Young persons afflicted with tim-

idity in society, enjoy relief from its use. That *rara avis*, the young physician who trembles when in the presence of his first obstetrical case, gains that self-confidence which comes from a steady brain, by the rational use of coca. A recent writer says "coca cures bashfulness." And especially is it a decided curative to that class of young men who have made themselves diffident by abuse of the sexual organs.

To give energy in muscular and nervous strength, the Peruvian Indians use coca. In their various occupations among the mountains, these people certainly stand in need of such a sustaining power. That its use inures them to fatigue is unquestionable.

It has been well said, that "the most perfect antidote of a poison is a poison." Coca—powerful as an intoxicant—is the great antidote for alcoholism and the opium habit. In these provinces it has no superior, and its greatest worth is found in its application to these two disorders. In all the meaning of the word, it is an antidote. But let us remember primarily, that there is such a thing as the coca habit, where the drug taken in excess produces a baneful effect. The life of the coquero, or inveterate coca-chewer, is blasted and desolate, and it is well to guard against the base power of a drug, able though it be to rid out of the system the love for alcohol and opium. The rule of treatment is that coca be made substitutive of alcohol or opium altogether. The dose is a tablespoonful of the fluid extract as often as the system craves the meaner stimulus. Opium and alcohol depress; coca excites and leaves no depression. In short, coca takes the place of both stimuli, and is thus antidotal.

Through its power of increasing the heart's action, coca is useful in cardiac irregularity. Especially is it of value with those patients who are surreptitious topers. It improves the action of the heart in cases where other remedies are powerless.

Capsicum.

Synonyms—Cayenne pepper, piper Indicum, seu Brazilianum, seu Hispanicum, seu Guineeuse, seu Turcicum, seu Calecuticum, seu Lusitanicum, Capsicum annum, Chili pepper, Garden ginger, Pimentis Poivre d'Inde, C. fastigiatum.

Botanical Details—"Sex. syst. Pentandria Monogynia—natural order Solanaceæ." There are numerous species of capsicum, of which C. annum is the type. It is an annual; stem erect, thick, smooth,

and branching; height, two or three feet; leaves ovate, lanceolate, and glaucous; flowers, solitary, white, and on long peduncles; calyx tubular and five-cleft; corolla monopetalous; anthers oblong, on short filaments; germen ovate, supporting a slender style, terminated by a blunt stigma. The fruit is a pod-like, juiceless berry, light, smooth, and sheeny, of a bright scarlet to dull red; celled; pulp dry and loose; seeds flat, thick and light yellow.

Medicinal Portion—The fruit.

Official Appearance—A bright yellow red powder. The odor is of a peculiar aromatic pungency.

Habitat—Native of tropical Asia and America. Cultivated in almost all parts of the world. In the United States it blooms in midsummer, and ripens in October.

Derivation of Name—Capsicum is from *καπτω*, "I bite." The various synonyms express their origin.

Chemical Composition—The peculiar pungency is due to an active principle, termed capsin, which is in substance a syrupy, yellow red fluid. Fellétar has also isolated a volatile alkaloid. Capsicin also possesses a resinoid substance, and an oil, as parts of its own complex organization. The other ingredients of capsicum (Braconnot), are coloring matter, a gum, pectic acid, an azotized substance, and saline matters. The commercial article is sometimes adulterated with sawdust and red oxide of lead.

Preparations—These are three, viz.: Infusion of capsicum ($\frac{5}{8}$ ss—Oj); tincture of capsicum, dose—℥x. — ʒ j; oleoresin of capsicum, dose—℥ i—v.

Antagonists and Incompatibles—Remedies increasing waste, etc.

Synergists—The alcoholic and other general stimulants, the urino-genital remedies, bromides, opium, chloral, etc.

Physiological Action—Capsicum is a powerful irritant, and may vesicate. Its taste is fiery, pungent, and acrid. In the mouth it increases the salivary flow; and in the stomach, where its pungency is still apparent, it increases the secreting power of the gastric glands. The action of stimulation is due to the condition of irritation. It is probable that it acts on the intestines as it does on the stomach. Elimination is by the kidneys chiefly, and decided diuresis may be provoked. Capsicum increases the circulation, being readily diffusible. Immediately on the sense of heat being felt in the stomach, a glow of heat courses through the body. Diaphoresis is produced.

Therapeutical Applications—Capsicum, by inducing subjective sleep, becomes valuable as a remedy for alcoholismus, and especially of true delirium tremens. The volatile alkaloid of Fellétar has a tranquilizing action on the brain; and with acting as a stomachic stimulant, becomes a substitute for alcohol. In a like manner it is serviceable in the opium habit.

Its stomachic effect renders capsicum curative of dyspepsia and flatulence. As a urino-genital remedy in pyelitis, cystitis, etc., it is very efficient. Aphrodisiac effects are produced by its use, and are manifest in the treatment of atonic spermatorrhœa and impotence. In fevers it becomes a stimulant of beneficial effect. Its diaphoretic powers are sought in domestic practice in treating tonsillitis, laryngitis, scarlatina, etc. In pure hysteria, capsicum serves to quiet the overwrought nerves, and this, with its action as a stomachic, promotes a cure.

Kava-Kava.

Synonyms—Ava, khaava, kava, yaquona.

Derivation of Names—Local to the Pacific islands.

Botanical Name—Piper methysticum seu excelsum.

Habitat—The islands of the mid-Pacific.

Botanical Details—The piper methysticum is a shrub growing to the height of five feet. The leaves are ovate, measuring about six inches long by as many broad. The root is long and fibrous.

Official Appearance—The kava of the Sandwich Island shops is of a grey color, light, and pithy.

Medicinal Portion—The base of the stalk is used with the root.

Chemical Composition—The active principle is a crystalline substance called methysticin, which is analogous to piperin. There is also a resinoid.

Preparations—There is an unofficinal fluid extract, the dose of which is 40 drops. In the countries to which this pepper is native, it is used as the base for the manufacture of an intoxicating liquor.

Therapeutical Applications—Kava acts as a tonic in small doses, but in large doses it produces intoxication of a drowsy nature. This property illustrates one use to which it is put, and is evidence of its action. In erysipelas it is curative, although in large doses it produces a decided erysipelatous eruption; so in alcoholismus it

counteracts the effects of alcohol by production of its own peculiar intoxication.

For gout, kava is recommended as a topical and internal remedy. In gonorrhœa, kava has been used with good success, relieving the patient in a short time. It has the greatest value in the secondary stage. Dr. Goss pronounces it "the most positive remedy" that he ever used for this disease. Cases of gleet that had resisted all other remedies, have lost their obstinacy when treated with fluid extract of kava. If it has one redeeming feature worthy of note, it is that it does not ruin the digestive powers as do copaiba and cubebs.

Chronic cystitis yields to treatment by kava, the drug displaying the effect of the piperacæ upon the congested mucous membrane. For gastorrhœa and blenorhœa it is a thorough remedy, and always a perfect mucous stimulant. In vaginitis and urethritis, and even in suppurative urethral inflammation, its action is a favorable one.

Kava, by allaying the irritability of the urethra, is a valuable addition to remedies for spermatorrhœa, if we accept theoretical grounds of evidence.

AMAUROSIS.

- | | |
|--|----------------------------|
| 1. Strychnia. | 3. Pulsatilla. (See Note.) |
| 2. <i>Cercus Bonplandii</i> (<i>vide angina pectoris</i> .) | |

DESCRIPTIVE NOTE.

Pulsatilla.

Synonyms—Anemoné pratensis, P. Nigricans, P. pratensis, P. des pres, meadow anemoné.

Botanical Details—Natural Order, Ranunculacæ; Tribe, Anemonéæ; Genus, Anemoné.

Family Relations—Includes such drugs 'as aconite, belladonna, etc. Other related anemonæ are A. Ludoviciana, A. Nemorosa, etc.

Medicinal Portion—The entire herb.

Habitat—Europe and United States.

Derivation of Name—"Pulsatilla" from *pulsare* "to agitate." "Anemone" from *anemos* "the wind." Both names refer to the vulgar term for the plant.—"wind flower."

Historical Details—Anemone is a medicine employed from early times. Of earlier writers, Galen (A. D. 175), Paulus Ægineta (A. D. 675), Avicenna (A. D. 1050), Dioscorides, and Pliny, mentioned it. Störck in 1771 revived its use. Hahnemann appropriated it in 1812.

With the more ancient writers it was esteemed in optical, cutaneous and female diseases. Störck vaunted it as a heroic medicine, ascribing to it so many wonderful effects that it was placed in the list of doubtful drugs. In Germany and France it gained and still retains a place in the pharmacopœia. In England and this country it is unofficial and but slightly known. In 1862, Mr. A. W. Miller, in 1867, Dr. J. C. Peters, and in 1878, Dr. H. G. Piffard, wrote *in extenso* on the drug. Still it is not familiar to the profession.

Chemical Composition—There is an active principle, supposed to be anemonin. This is acrid, volatile, soluble in hot water and hot alcohol, and possessing vesicant and caustic properties. The formula is $C_{15}H_{12}O_6$. Heyer in 1779 isolated anemonin, and used it in diseases of the eye. Alkalies convert anemonin into anemonic acid.

Preparations—Unofficial. A fluid extract, a tincture, and an elixir have been prepared. The infusion is employed.—Anemonin, dose $\frac{1}{80}$ grain.

Antagonists—Not indicated.

Synergists—Monobromide of camphor, chloral, lactuacarium, and the bromides increase the action of pulsatilla.

Physiological Applications—The general effects of anemonin are not unlike those of aconitine. Clarus says doses of 0.5 to 0.6 grm. causes death in rabbits. Infusion of pulsatilla causes an increased secretion of the mucous membrane, and glands. Störck and Hahnemann publish a long list of symptoms said to have been produced by the drug. Most of these are non-essential; and in truth, the drug is so little known that it is difficult at this time to nominate its physiological action.

Therapeutical Application—That affection of the eyes, the

physiological character of which is vaguely expressed by the term "amaurosis" may be cured by *pulsatilla*.

The drug is also successfully used in pertussis, epididymitis, amenorrhœa, and syphilis. It is said to be useful in eczema and in psoriasis. A fresh preparation should alone be employed.

AMENORRHŒA.

- | | |
|---|--|
| 1. Iron. | 10. Parsley seed. (See Note.) |
| 2. Aloe. | 11. <i>Gentiana quinqueflora</i> . (<i>vide intermittent fever</i> .) |
| 3. Arsenic. | 12. <i>Caper-bush</i> . (See Note.) |
| 4. Electricity. | 13. <i>Ajuga Chamæopitys</i> . (See Note.) |
| 5. Sanguinaria. | 14. <i>Damiana</i> . (See Note.) |
| 6. Serpentina. | 15. <i>Hedepitysma</i> . (See Note.) |
| 7. Savin. | 16. <i>Pulsatilla</i> . |
| 8. Gold. | 17. <i>Achillea</i> . (See Note.) |
| 9. <i>Pulsatilla</i> . (<i>vide amaurosis</i> .) | |

DESCRIPTIVE NOTES.

Parsley Seed and Root.

Synonyms—*Petroselinum sativum*, *apium petroselinum*, *selinum*, *grielum*, *persil*.

Botanical Details—"Sex. syst. Pentandria Digynia. Natural Order, Apiaceæ or Umbelliferae. Gen. Ch. Umbels compound. Calyx obsolete. Fruit, dentate-ovate." Root, biennial. Stem, annual, round, jointed, branching, and about two feet in height. Leaves compound, pinnate in ternaries. Flowers are small, pale-yellow, and in umbels. Seeds are two, convex and flat, of a dark-green color.

Habitat—Native of Southern Europe. Cultivated in almost all parts of the world.

Medicinal Portion—Both root and seeds are used.

Derivation of Name—*Apium*, "parsley." *Petro*, "rock," *Selinum*, "parsley." The word "parsley" is a corrupted abbreviation of *petroselinum*.

Chemical Composition—Parsley owes its taste and odor to its oil, apiol, a yellow liquid, analogous to the fixed oils. This substance is inflammable, soluble in alcohol and ether, but not in water. Beside this there is a gelatinous substance named apün by Braconot. It resembles pectin, and associated with it are tannin, chlorophyll, lignin, various salts, bitter extractive, and a fatty matter.

Physiological Action—The peculiar fiery pungency of parsley is familiar to almost all palates. Its after acidity, its terebinthinate odor, and its commercial appearance are as familiar. The root is diuretic and aperient. The seeds are antiperiodic, stimulant, and laxative. The action of apiol resembles that of quinine, producing tinnitus aurium, vertigo, and intoxication, and stimulating the uterine system.

Therapeutical Applications—In the treatment of amenorrhœa, where anæmia is prominent, apiol, or the fluid extract of the seed, is serviceable. Dose of the apiol, 15 grains, at or just preceding the time of the menstruation. In ascites, parsley is as valuable as juniper, and the dose of the infusion is two ounces. Neuralgia,—if any progress toward cure from other remedies be resisted,—will often be relieved by parsley. Neuralgic dysmenorrhœa is benefited by its use. In nephritis parsley was formerly much used, but its worth is doubtful. A decoction of the leaves has been used for ophthalmia.

Basing their observations on the resemblance existing between apiol and quinia, M. M. Joret and Homolle nominated parsley as a cure for intermittent fever. They report 86 per cent. of their cases successful. Others, using the remedy carefully, have found it to fail in every case. I think that it is possible that it may stand to quinia as does arsenic,—to be used in case of idiosyncrasy,—but its inferiority is so marked that it is in no sense a true substitute.

Caper-bush.

Synonyms—Capparis spinosa, cappar.

Habitat—Indigenous to the countries of North Africa. Cultivated in Southern Europe.

Medicinal Portion—Buds and bark of root.

Botanical Details—Natural Order, Capparideæ. Sex. syst. Polyandra monogynia. It is a low trailing bush.

Chemical Composition—Tannin seems to be one of the prominent proximate elements, but no satisfactory analysis has been published.

Physiological Action—Directly the caper is an astringent. Through action on the vaso-motor system it becomes an hepatic agent. It is also reputed diuretic.

Preparations—The infusion of the bark is used commonly. The commercial "capers" are also in service.

Therapeutical Uses—This drug is of no small value in amenorrhœa. In hepatitis, icterus, and splenitis, it is esteemed curative. The "capers" are used in scurvy, and is a favorite in the country of its nativity.

Ajuga Chamaepitys.

Synonyms—*Teucrium chamaepitys*, *ajuga*, *abiga*, ground pine, *ionia*, *petite ivette* (Fr.)

Habitat—A native of Europe, and of some parts of the United States.

Botanical Details—"A low, creeping, annual, labiate plant." The leaves resemble those of the pine, hence one of its common names.

Physiological Properties—This drug is possessed of aromatic and bitter properties. It is aperient, tonic, stimulant, and diuretic.

Therapeutical Applications—It is in the treatment of amenorrhœa that ground pine is a valuable remedy. In paralytic disorders and in rheumatism it has been recommended, but its reputation is manifestly in excess of its real worth. As a diuretic its action is mild and not altogether certain, but its pleasant aromatic taste provides it a desirable vehicle for other more offensive medicines of its class.

Damiana.

Synonym—*Turnera aphrodisiaca*.

Position—Unofficinal.

Preparations—Fluid extract, dose 3 ss-j. Solid extract, dose grs. 7-10. Elixir, dose 3 j-ij. Pills, dose, (each pill,) 3 grs.

Habitat—Mexico.

Medicinal Portion—The leaves and flowers.

Botanical Details—I would that the botany of damiana was more legibly written. We have several brief notices of the drug, and other notices of more or less length, but all strikingly imperfect. All that it is necessary to say, however, is that damiana is a mint, growing as a small plant near the western coast of Mexico, and bearing a white, fragrant flower. More than this need not be said of the drug. An extended report might be quoted, but it is too noticeably erroneous and had best remain in its original dress and position.

Physiological Properties—Damiana owes the secret of its power to its being stimulant in its action to the urinary channels through which it passes to be eliminated. It is a powerful aphrodisiac, alterative, and aperient. It is a permanent tonic of the genital organs, dependant however on impressing the nerve-centers, very much as does strychnia. The direct action of the drug is upon the basilar portion of the brain, and the consequence is stimulus of the reproductive organs. It increases the sexual appetite as well as the flow of urine, and may become irritant as well as stimulant.

Not so much primarily as in a secondary manner, damiana restores the exhausted nerve cells, rendering them more able to take up the nerve pabulum furnished them. Thus, though it has no marked effect on the heart, stomach, or liver, it acts as a laxative, nauseant, and general systemic tonic.

Therapeutical Applications—Damiana is a specific remedy for sexual debility or lethargy of any form and with any outcome. To write the word "specific," to say that a given remedy cures and never fails, may seem as if nature was being tempted. But still, damiana is a specific, and such an one as can be trusted in, and depended upon. A true preparation of damiana is always reliable.

Impotence is removed, and the procreative powers invigorated, by damiana. Be the cause of sexual debility self-abuse or senility, be the impotence that of male or female, the drug is always remedial.

Dr. J. F. Hammond reports use of this medicine in albuminuria, with fine results. Its specific action on the prostate, brings it to the front as remedial of prostatitis and prostaticorrhœa.

Damiana is in a certain percentage of cases a curative of spermatorrhœa. Well-directed employment of electricity, and the free use of damiana relieves this state of things.

With appropriate hygienic treatment damiana becomes an excellent remedy in cases of amenorrhœa and dysmenorrhœa, and thus applied, is not only valuable but indispensable.

Sumerlin has employed this drug for atrophy of testicle, and others have also born the same testimony.

Among other diseases to the treatment of which damiana has been applied the literature of the subject makes mention of incontinence of urine, cystitis, nephritic disorders, and leucorrhœa. Of the treatment of the last-named disease, we may say that although damiana is without doubt a remedy of no little importance, yet it is not a "cure-all," and should not be too highly vaunted.

A western firm that has had some experience in the introduction of damiana says. "We prefer to know more of its merits before we recommend it." Suffice then, it has merits, and can be recommended.

Hedeoma.

Synonyms—Pennyroyal, squaw-mint.

Habitat—Dry lands in all parts of North America.

Medicinal Portion—The entire herb.

Botanical Details—Order, Labiatae; Sex. syst., Diandria Monogynia. An indigenous annual, about a foot in high. Leaves opposite, oval-lanceolate, rough. Flowers pale-blue in axillary whorls.

Preparations—Oleum hedeoma; dose gtt. ij-x.

Physiological Properties—Hedeoma is a warm and gentle aromatic. It excites the secretions, especially the menstrual flux and perspiration. Its favorite uses are tonic and emmenagogue.

Therapeutical Applications—In amenorrhœa the ol. hedeoma, or a strong infusion is used with good effect. For flatulency and gastric disorder it is probably employed, either independently or as qualifying other like remedies. It is a domestic diaphoretic of some importance, having been definitely used by all old ladies who dispense their knowledge of herbs to believers in their efficacy.

Achillea.

Synonyms—A. millefolium, yarrow, millfoil.

Habitat—In old fields throughout the United States.

Medicinal Portion—The whole herb.

Preparations—The oil; dose xx-xxx drops. Infusion, dose ξ j.

Botanical Details—Natural order, compositæ senecionidæ. Sex. syst., syngenesia superflu. A perennial herb, growing to a height of about sixteen inches. Leaves two to six inches long, dissected, downy. Flowers a fastigiate corymb, terminal, white and purple-tinged. Floral season, the entire summer.

Chemical Composition—"The plant owes its virtues to a volatile oil, a bitter extractive, and tannin. It contains also a peculiar acid denominated achilleic acid."

Physiological Properties—Taste, bitter, pungent, and astringent. Action, astringent, tonic.

Therapeutical Applications—In amenorrhœa, dysmenorrhœa, and all menstrual disorders, achillea, is found useful. In low fevers, intestinal colic, and infantile convulsions it is employed by the profession in France. It has been used for suppressed lochia, but there are more superior remedies.

ANÆMIA.

- | | |
|---|---|
| 1. Iron. | 8. Hydrastis. |
| 2. Arsenic. | 9. Cod-liver oil. |
| 3. Manganese. | 10. Helonias dioica. (<i>See Note.</i>) |
| 4. Electricity. | 11. Bullock's blood. (<i>See Note.</i>) |
| 5. Malt liquors. | 12. Aletris. (<i>See Note.</i>) |
| 6. Nux vomica. | 13. Malt. (<i>See Note.</i>) |
| 7. Parsley seed and root, (<i>Vide</i>
amenorrhœa.) | |
-

DESCRIPTIVE NOTES.

Helonias Dioica.

Synonyms—Starwort, false unicorn, veratrum lutreum.

Habitat—Indigenous to the United States. In shady places.

Chemical Composition—Undetermined.

Botanical Details—Order Melanthaceæ. Perennial. Root bulbous. Stem, one or two feet high, angular and smooth. Leaves four to six inches long, one inch wide. Flowers greenish-white, in terminal racemes. Capsule, many-celled, with seeds.

Medicinal Portion—The root.

Preparations:—Unofficial. The dose of the powder is 3 j *ter die*. Tincture; dose 20–30 drops.

Officinal Appearance—The root is dry, hard, and brown.

Physiological Action—This medicine may be classed as a perfect urino-genital. It is also a tonic, with a specific action on the uterus, and with a tendency to produce an intense irritation of the stomach. It is a harsh emeto-cathartic in large doses.

Therapeutical Applications—Starwort is one of the important remedies for anæmia. It cannot be esteemed as high as others in the list of remedies, but, it is curative. In dyspepsia it exerts a pleasant remedial action. Acting on the uterus, it is of value in ovarian neuralgia, cervicitis, and vaginal irritation. In impotence it serves to relieve atony of the organs of reproduction.

It has been named a remedy for albuminuria, but I doubt its efficacy. Still there is a possible worth in the drug, and it may be tried. I think that it has a finer value if given in combination with iron, but in anæmia iron overshadows all other agents, and asks no adjuvant.

Bullock's Blood.

Therapeutical Applications, History, etc.—To the great Israelitish law-giver there came in the wilderness of Sinai the divine command that his people should refrain from the eating of blood; and coupled with this law was that relevant and congruous theory of biology, so well known to us all,—*Ki nephesh habbâssâr beddon he*, “For the life of the flesh is in the blood.” From the time of Moses the eating of blood was esteemed sin, until without graduation it suddenly presented itself as a therapeutical agent, admirable in its excellence, as affording nutriment and medicament in its composition. The German physicians were the first to take cognizance of value of the article as a food medicine, and about 1850–2 Dr. Samuel Jackson and others introduced the use of blood in this country, giving it in a dried form as a tonic.

There grew up the hobby, among a few would-be hobbyists, that blood was a medicine of high excellence. For many years the disciples of the theory of blood were few and prejudiced. A comparatively short time ago,—immediately preceding the “hypophosphates” craze, and prior to the “blue glass” mania,—some design-

ing person insanely proposed blood as drawn from the bullock as a remedy for pulmonary consumption. This form of insanity spread, and to almost every abattoir throughout our country daily flocked the willing consumptives that they might indulge in the drinking of fresh blood. After a little the *furore* exploded, the nauseating draught was condemned, and blood-drinking gave place to some other as harmless craze. This experience served to prejudice many against blood, but the eyes of the profession still lingered upon it. More interest began to be taken in the use of this therapeutical agent. It soon found its place. It began to be used in public hospitals and private practice. Soon a demand arose for a perfect product of blood. It was thought and found that blood defibrinated and dessicated *in vacuo* was preferable to fresh blood for administration. A well-known western firm of manufacturing chemists* secured the facilities of the central stock yards at Jersey City, and, under the supervision of a scientific chemist, began and still continue, with increasing success, the manufacture of desiccated bullock's blood, a substance now known almost universally. The desiccation is performed with great care, and attention to vital and chemical phenomena. It is but fair to say that there are other "blood preparations," beef extracts, etc., but none of them are, in our opinion, comparable to that above-named. In this article, I beg leave to refer wholly to the *sanguis bovinus exsiccatus* of the market.

The question is: Shall we make use of dried blood in therapeutics? It, like cod liver oil, is disgusting to patients; but, in such a vehicle as a mixture of brandy and glycerine, it is rendered palatable. If other nauseant medicines are to be used, then can we employ blood. It may, however, be administered per rectum, as well as per orem. It is as valuable for rectal alimentation as if taken by the stomach. (In connection, I would refer the reader to Dr. A. H. Smith's Essay on Rectal Alimentation, as also a similar paper by Prof. A. Flint.) I find that there are those who regard rectal alimentation as the most preferable, and there are times when it is to be preferred. Blood, taken per rectum, enters the system chemically unaltered. It is but the liquid beef free from indigestible fibre, and thus needs not the action of digestion. Per

*Parke, Davis & Co., Detroit, Mich.

orem, the blood is reconstructed; per rectum, it is absorbed unchanged.

I do not wish to be understood as ridiculing the practice of blood-drinking at the abattoir. Many cases are most remarkably benefitted by it. But, still, other less objectionable methods of administration are more worthy of regard. Rectal administration of crude blood, or even transfusion, are, of course, in every way practicable.

Pulmonary phthisis is the disease to which blood is the most frequently applied. It is there remarkably beneficial. Night-sweats are diminished, the appetite is improved, cough is lessened, and strength is revived. Preferable administration is per rectum.

In anæmia and anæmic conditions, the general condition of the system improves under treatment by the aid of the administration of blood.

Atonic dyspepsia, a disease that produces poverty of the blood, receives needed nutrition by means of rectal administration. The weakened stomach, given rest, leads to cure of the dyspeptic condition. One to six ounces may be retained, and will, for the most part, be absorbed. Still it should be but supplemental—an aid to stomach alimentation, not a real substitute.

Gastric ulcer is greatly benefitted by the use of blood given per rectum, but only indirectly, and as adjuvant. I should not advise more than two ounces administered at one time. (3 j dried blood represents $\bar{3}$ j fluid blood.)

In neuralgia, where the patient is very feeble, the use of blood supplies new vigor, and thus becomes serviceable as auxiliary to other treatment.

In brief, blood, per rectum, is indicated as a tonic nutrient in all diseases characterized by excessive waste, excepting, perhaps, disorders of the intestines. Exhaustive diseases of any kind are materially benefitted by blood per orem. The article comes prominently to the front as a candidate for a position in the pharmacopœia, and richly it deserves the place.

Aletris.

Synonyms—*A. farinosa*, seu *alba*, bitter-grass, "starwort," blazing star, black root, and several others.

Habitat—Indigenous to America. In woods.

Botanical Details—Natural order, Asphodeleæ. Sexual system, Hexandria Monogynia. Leaves, radical. Stems, short. Flowers, white in spike.

Derivation of Name—Aletris, "meal." Starwort, etc., from form which the leaves take.

Medicinal Portion—The root.

Official Appearance—Root crooked, broken, brown.

Preparations—Not officinal. Powder, dose 10 grs. Fluid extract, dose 20 to 30 minims. Tincture, dose 30 to 60 minims.

Physiological Action—Bitter to the taste. Tonic. Special action on uterus. Large doses are nauseant.

Therapeutical Applications—Aletris is a tonic of some importance in anæmia and chlôrosis, dependent on uterine disorder. It is said to be beneficial in colic and chronic rheumatism. In sterility, due to uterine atony, it always acts as an ovarian or uterine tonic. In scanty menstruation it is serviceable. It is also said to act as a prophylactic of abortion.

Malt.

Synonyms—Maltum, hordei maltum, byne, brasium.

Derivation of Name—From μαδατεα, "I soften." (?)

Definition—"Barley made to germinate for the purpose of forming beer." Malt consists of barley made to germinate by warmth and moisture, and then baked so as to deprive the seeds of vitality.

Chemical Composition—By the process of malting, barley is deprived of its hordein, and receives an increase of gum, starch, and sugar. Proust's analysis shows in 100 parts, 56 of starch, 1 gluten, 17 gum, 15 sugar, 1 yellow resin, and 12 of hordein. There has, of late, been some question as to hordein being an elementary substance, and its standing is by no means defined. A substance called diastase, or maltine, having an identity with the diastase of saliva, is found after germination in the seed of barley, as well as that of wheat and oats, and also in the potato. It is a white, tasteless solid, soluble in water, but not in alcohol. It is rich in nitrogenous constituents, and has a composition not non-identical with that of the blood. It "contains the hypophosphites as prepared by nature."

Preparations—There are no officinal preparations of malt, but

the market is flooded with empirical preparations. Though I cannot favor or advise the use of these latter, yet I will name some of those best known. Perhaps as well-known as any is the so-called fluid extract of malt. Another, and a very eligible preparation, is maltine. There is the German malt, malt with other agents, etc., etc., all very palatable! Perhaps the best "preparation" of malt, and certainly the most popular, is lager beer, always eligible, and combining in its composition all of the best qualities of malt. I have all confidence in the worth of malt, as expressed by beer, and can recommend it, as many recommend it, as the best "preparation."

Physiological Properties—Malt combines in its composition both food and medicine. It is easily digested, and has, in fact, a wonderful digestive power. The per cent. of inert matter is strikingly small, and the agents of digestion are readily applied to the nutritious principles only. Malt retards waste, and is a true tonic.

Synergists—Iron, quinine, arsenic, pepsine, bismuth, oils, mineral acids, populus, cherry bark, eucalyptus, etc., etc.

Therapeutical Applications—Malt is of great value in all wasting diseases, and in none more so than in pulmonary phthisis. Freely given, it increases weight and tones up the system. Against malnutrition it imposes that nutrifying power which only a food medicine can give to the demands of a broken constitution. It sustains the system and preserves the life, although still the tubercular ravages are going on. With construction, emaciation is controlled, and life is prolonged, and the patient tided over the worst stages of a wasting malady.

In convalescence from fevers, and various acute diseases, malt is of the greatest value, patients improving rapidly in flesh and vigor.

Physicians are frequently consulted by parents, themselves consumptive, in regard to their scrofulous and delicate children. Thoughtlessly we are in the habit of prescribing iron. It is prone to prove useless in all too many cases, and we look for a preferable remedy. Such a one is found in malt. The delicate school girl, who lives on a spare diet of wheat bread, pie, cake, and caramels, given lager beer thrice daily, in doses of a wine-glassful, improves readily, and attains to a strength that abused nature cannot give.

Another, and an allied class of cases in which beer does real wonders, is in those female disorders where weakness seems to subordinate the entire life. I need not specialize upon these cases. The malt is tonic to the system, strengthening, building up, and sustaining the broken life.

The digestive powers of malt give to it a fine efficacy as a remedy for dyspepsia. Theoretically, it is the remedy for dyspepsia and indigestion, and, in practice, it substantiates the claims made for it. In that form of the disease called "albuminous," I combine malt extract with pepsine, and, occasion serving, add strychnia and bismuth. In cases of dyspepsia occurring in young men who have made themselves the victims of self-abuse, or in that class of dyspepsia due to alcoholism, or excessive use of tobacco, malt, with iron and quinine, restores the digestive organs to health and strength. Dr. Douglas Morton reports cure of chronic bronchitis by use of malt; and other beneficial uses are had in the treatment of scrofula, leucorrhœa, etc.

For anæmia and chlorosis, I would prescribe malt, with iron and cod liver oil, as having no superior. Malt has also been recommended in marasmus, constipation, dysentery (?), neuralgia, emaciation, and other diseases of which one or all of these are typical.

I have to say a word as to lager beer, already alluded to above. I know of no tonic in the pharmacopœia that is better borne or more to be depended upon. In taking it the patient feels that he is using a beverage rather than taking a medicine, and the power of association does much toward effecting remedial action. I recommend moderate and systematic use of beer when I find that a tonic is indicated, and can say, without any reluctance, that I prefer it, in a majority of cases, to iron, or any other remedy of the class. There are cases that come to the physician every day where tonic measures are needed. In this connection my rule is malt, malt, and always malt, and malt in the shape of beer. The time is coming when malt will be officinal in our pharmacopœia, as it now is in Germany. Speedy be the coming of that day.

ANGINA PECTORIS.

- | | |
|------------------------------|------------------|
| 1. <i>Nitro-glycerine.</i> | 5. Amyl nitrite. |
| 2. <i>Cereus Bonplandii.</i> | 6. Arsenic. |
| 3. <i>Cereus McDonaldii.</i> | 7. Ether. |
| 4. <i>Jamaica Dogwood.</i> | |
-

DESCRIPTIVE NOTES.

Nitro-Glycerine.

Synonyms—Glonoin, Glonoinum.

History—Discovered in 1847 by M. Sobrero. It was first applied as medicine by Field, of London (1858), and later revived by Murrell.

Derivation of Name—The word nitro-glycerine is derived from nitre and glycerine, two of its components.

Composition—The following is Liebe's process: Half an ounce of dehydrated glycerine is mixed with one ounce fuming nitric acid (sp. gr., 1.52) and two ounces of oil of vitriol, by stirring, at a temperature under ice of below 77° F. As soon as beads of oil appear on the surface, the mass is poured, with constant stirring, into fifty ounces of cold water. Nitro-glycerine then separates, and is purified by washing and drying in a vapor bath. At first it is a sweet, opaque, creamy-looking, and oily fluid. On drying it is dehydrated, and forms a transparent, colorless, oily fluid, inodorous and pungent.

Chemical Composition—The formula of nitro-glycerine is $C_6H_5O_6, 3 NO^1$.

Preparations—Nitro-glycerine is best administered in pill-form; 1-100 gr. is the commencing dose.

Physiological Actions—Six minims of a 10 per cent. solution, injected hypodermically on a frog, produced tetanus and paralysis. Respirations, rapid; convulsions, gradually weaker, finally, death.

In the human system it is a powerful but fleeting stimulant. Symptoms are: Increased frequency of pulse, headache, prostration, loss of consciousness, pain in the fauces, nausea, and diuresis.

Full action on the pulse takes place in two to six minutes. Tinnitus aurium occurs. Diaphoresis and languor are incidental. The effects of the drug are not permanent primarily.

Therapeutical Applications.—The profession has long wanted a remedy for angina pectoris, a disease at once the most distressing and fearful of any under which man has to bow. Other remedial agents have been named, but at their head, as most powerful, may be placed nitro-glycerine. For some time it had borne a reputation as an anti-neuralgic, when Murrell brought it forward as a remedy for angina pectoris. A larger number of cures have resulted from its use than have come from any other remedy. In the London hospitals it is taken in doses of 1-100 gr., every three hours, to ward off attacks. I have employed it, and am happy to say that it ranks in my estimation first of the remedies for this disorder.

Where neuralgia is an element of prominence in a disease then is nitro-glycerine antidotal to it. Hence its efficacy in tetanus, sciatica, nervous headache, odontalgia, and hysteria. It has been suggested as a remedy for chloroform poisoning. Robson recommends it in acute Bright's disease, and in the vascular tension of the aged.

In combination with ergot and bromide of potassium, nitro-glycerine may act prophylactic of threatened apoplexy, and I should give the same combination favor in treatment of the actual attack. Still nothing can be promised in this regard.

Cereus Bonplandii.

Synonym.—Bonpland's cactus.

Family Relations.—The cacti.

Habitat.—Mexico.

Botanical Details.—So little is *cereus Bonplandii* known that its botanical description must, for the time, remain unwritten. It is a night-blooming, or "torch-light" cactus, a native of Mexico, and found in Central America. It flowers in July, but the bloom is but for a single night. Bonpland, its discoverer, regarded it as a member of the natural order Cactaceæ. Its tribe was later determined to be the Cereastreæ. Of the twenty or more species of this tribe, travelers name it as one of the most beautiful.

Medicinal Portion—The plant.

Preparations—A tincture and a fluid extract may be obtained.

Synergists—Arsenic assists the action of cereus Bonplandii, materially supporting its effects.

Chemical Composition—Not determined.

Physiological Actions—This drug is not an arterial sedative, but acts on the system through stimulation of the vaso-motor nerves. It stimulates to buoyancy, although it is a nerve sedative, and manifests a special affinity for the heart.

Therapeutical Application—Kunze gives cereus Bonplandii the credit of exerting an influence over both functional and organic cardiac disease. From application to palpitation of the heart, and amaurosis, it came to be used in angina pectoris, relieving the terrors and excited cardiac action characteristic of this disease. Yet its place is not well occupied, and the medicine is yet to be proved. Ranking as a mere sedative, it is a means of relief in neuralgia. In all cardiac disorders, where a cardiac sedative and tonic is needed, cereus Bonplandii may be tried. In dyspnoea and pneumonia, where breathing is difficult, it is reputed of some value. In Mexico it is a "remedy" for fever, but I fail to understand its *modus operandi*.

Cereus McDonaldii.

Synonym—The grass torch thistle.

Habitat—Mexico and Central America.

Preparations—A fluid extract; dose, 10 to 30 minims.

Official Appearance—The dried leaves in matted bulk.

Botanical Details—Natural Order, Cactaceæ; tribe, Cereastreæ.

A species of night-blooming cereus first introduced by Kunze as a substitute for the rarer *C. Bonplandii*.

Observation—I find that *C. McDonaldii* is similarly constituted and of a like action with *C. Bonplandii* and *C. grandiflorus*. (Which see.)

Therapeutical Applications—In the influence which it exerts upon the nervous system, *C. McDonaldii* becomes calculated to act remedial of angina pectoris, and is only second in worth to its better-known relative. In cardiac disorders it controls the excited heart action, and is thus curative. It lessens the painful

discomfort attendant on hypertrophy of the heart, although, of course, it does not cure.

APHONIA.

- | | |
|------------------------|---------------------------|
| 1. Electricity. | 5. Nitrate of silver. |
| 2. Iron and quinine. | 6. Tannin. |
| 3. Counter irritation. | 7. <i>Rumex crispus</i> . |
| 4. Atropia. | 8. <i>Mullein</i> . |

APHTHÆ.

- | | |
|---------------------------|---|
| 1. Iron. | 8. Mineral acids. |
| 2. Quinia. | 9. Carbolic acid. |
| 3. Bismuth. | 10. Sulphate of copper. |
| 4. Chlorate of potassium. | 11. <i>Ceanothus</i> . (<i>See Note.</i>) |
| 5. Borax. | 12. Moose wood. (<i>See Note.</i>) |
| 6. Iodide of potassium. | 13. <i>Arum triphyllum</i> . |
| 7. Sulphurous acid. | 14. <i>Coptis</i> . (<i>See Note.</i>) |

DESCRIPTIVE NOTES.

Ceanothus.

Synonyms—New Jersey tea, celastrus, new red root.

Habitat—All parts of the United States.

Medicinal Portion—The entire plant.

Botanical Details—The *ceanothus* is a shrub of the family of the *Rhamnaceæ*, growing low, on dry slopes, and flowering in mid-summer. The stem is of a polished green, with striæ of brown, and the young shoots are of a lively green. The leaves are two inches long by one wide, obovate, and serrated. The flowers are a delicate white, in clusters; calyx, five-segmented; petals are oblique cups, five in number. Fruit, a three-sided berry. Seeds, three. Root of a red color.

Chemical Composition—Wanting.

Physiological Action—That of an astringent and purgative.

Therapeutical Applications—In aphthæ, and in the sore mouth of scarlatina, this is a valuable gargle. There are, perhaps, few American remedies more valuable in splenitis. It is also recommended for syphilis.

Moose-Wood.

Synonyms—Moose tree, striped maple, etc.

Habitat—The Northern United States. In swamps.

Medicinal Portion—Bark and leaves.

Botanical Details—The moose-wood is a tree of the maple family. The late Wm. Bacon, of Richmond, Mass., reported that he has known it to attain a height of thirty feet, but twelve is the average. The outer brown bark cleaves, and exposes the white inner bark, making the trunk beautifully striated. Leaves, opposite, heart-shaped, serrate. Flowers, white. Fruit, an orange berry, in clusters.

Physiological Properties—The berries are a narcotic poison. The bark is acrid, bitter, and excites flow of the saliva. Violent emesis and purging follows its use. Applied to the skin the bark vesicates.

Therapeutical Applications—I would suggest that a weak decoction (one per cent.) of moose-wood be used as a gargle, or wash, in that form of aphthæ characterized by scant salivary secretion. I would, however, ask that its toxical properties be kept in mind.

Coptis.

Synonyms—C. trifolia, gold-thread, fibraurea, mouth root.

Habitat—In boggy places from Alaska to Maryland.

Medicinal Portion—The root.

Official Appearance—Coarse gold-colored pieces of thread-like root.

Botanical Details—Natural order, Ranunculaceæ. Sexual system, Polyandria Polygynia. A yellow, creeping, perennial root, from which arise slender footstalks, carrying three obovate leaflets. The flowers are minute, white, and single. Pods, stellate, spreading, and having few seeds.

Chemical Composition—Coptis yields berberina, and a bitter alkaloid coptina, beside other proximate elements.

Physiological Action—Coptis is a simple bitter, and increases secretion of the mucous membrane, thus improving digestion, promoting constructive metamorphosis, and favoring assimilation.

Synergists—Iron, the simple bitters, cinchona, etc.

Therapeutical Applications—Coptis, in infusion as a gargle, is a remedy for aphthæ, and ulcers of the mouth. It is a pure bitter, and is indicated where a fine tonic effect is desired.

APOPLEXY.

- | | |
|--|--|
| 1. Ergot and bromide of potassium. | 6. Ether. |
| 2. Depletion. | 7. Counter irritation. |
| 3. Electricity. | 8. Salines. |
| 4. Nitro-Glycerine. (<i>Vide angina pectoris.</i>) | 9. Zinci phosphide. |
| | 10. Gelsemium. |
| 5. Alcohol. | 11. <i>Cactus grandiflorus.</i> (<i>See Note.</i>) |

DESCRIPTIVE NOTES.

Cactus Grandiflorus.

Synonyms—Night-blooming cereus.

Habitat—Mexico and Central America.

Medicinal Portion—The entire plant.

Botanical Details—*Cactus grandiflorus* is one of the night-blooming cacti of Mexico. I regret being unable to present its botanical description.

Preparations—Unofficial. A fluid extract is the market; dose, 10—30 drops.

Physiological Action—In these days, when many new anti-periodics are coming to our notice, it is very refreshing to meet with another kind of a substitutive agent. Cactus grandiflorus is a “substitute for digitalis.” It has a coming reputation, made ready to hand. It prolongs the diastole, and it may affect the systole. The temperature rises temporarily. Sedative action is not manifest on the arteries, and on the cardiac nerves. In large doses it is lethal.

Therapeutical Applications—In various cardiac diseases this cactus acts promptly. Kunze and others recommend it in palpitation. In intermittent pulse it acts admirably. Valvular deficiency proves the good effects of this agent, and the functional disease fails of its force under this treatment. Whether the cactus will come to be a true substitute for digitalis is questionable, but it surely has the honor of standing in brilliant light. In pseudo angina pectoris, and in nervousness, it is remedial. Goss commends it for leucorrhœa. Its utility in hemorrhagic diathesis, with eventuation of apoplexy, is surprising.

It is to be regretted that the cactus preparations of some manufacturers are notably inert, and, in consequence, the agent has, to some extent, been held up to disrepute.

ASCARIDES.

- | | |
|-----------------|-----------------------------|
| 1. Mucuna. | 6. Eucalyptus. |
| 2. Santonin. | 7. Pomegranate root. |
| 3. Chenopodium. | 8. Benzoin oderiferum. |
| 4. Spigelia. | 9. Yerba buena. (See Note.) |
| 5. Iron. | |
-

DESCRIPTIVE NOTES.

Yerba Buena.

Synonym—Micromeria Douglassii.

Habitat—California.

Medicinal Portion—The entire plant.

Preparations—Fluid extract; dose, 10 to 20 drops.

Remarks—The literature of this herb is so sparse that it is with difficulty that we are able to present its true standing.

Botany—Perennial, of order of *Labiata*; stems trailing; leaves ovate; flowers purple and pedunculate. It has a grateful, pennyroyal-like perfume.

Therapeutical Application—Yerba buena is a stomachic, stimulant, and anthelmintic; and has febrifuge and emmenagogue effects.

For the expulsion of ascarides yerba buena is well adapted,

and is deserving of better acquaintance. It is beneficial for gastrodynia; allays nausea; is undoubtedly of worth in vomiting of pregnancy; acts curative of febrile disorders, and is effective for expelling flatus. It excites the menstrual flow, and hence is not without value as an emmenagogue.

ASCITES.

- | | |
|--|--|
| 1. Elaterium. | 12. <i>Plantago major</i> . (See Note.) |
| 2. Stillingia. | 14. <i>Urtica dioica</i> . (See Note.) |
| 3. Jalap and squill. | 15. <i>American arbor vite</i> . (See Note.) |
| 4. Juniper berries. | 16. <i>Sambucus Canadensis</i> . (See Note.) |
| 5. Acetate of potassium. | 17. <i>Epigza repens</i> . (See Note.) |
| 6. Iron and quinine. | 18. <i>Purslane</i> . (See Note.) |
| 7. <i>Apocynum cannabinum</i> . (See Note.) | 19. <i>Virginia creeper</i> . (See Note.) |
| 8. <i>Faborandi</i> . (See Note.) | 20. <i>Carrot</i> . (See Note.) |
| 9. <i>Euphorbia corollata</i> . (See Note.) | 21. <i>Antirrhinum Linaria</i> . (See Note.) |
| 10. <i>Hair cap moss</i> . (See Note.) | 22. <i>Asparagus</i> . (See Note.) |
| 11. <i>Shepherd's purse</i> . (See Note.) | 23. <i>Euonymus</i> . (See Note.) |
| 12. <i>Parsley seed or root</i> . (Vide <i>amenorrhœa</i> .) | |

DESCRIPTIVE NOTES.

Apocynum Cannabinum.

Synonym—Indian Hemp.

Botanical Details—*Apocynum*. Sex. syst., Pentandria Digynia. Nat. Ord., apocynaceæ. Calyx, small, close, and five-cleft. Corolla, half five-cleft, campanulate, with five basal dentate glands. Anthers, sagitate. Stigma, acute and thick. Style, wanting. Seed, comose.

It is a branching, brown-stemmed herb two feet high. The leaves are opposite, double acute, and downy beneath. It abounds in a milky juice. The bark is fibrous.

Medicinal Portion—The root.

Official Appearance—Brown, and brittle fragments.

Habitat—In the skirts of woods throughout the United States. It flowers in July.

Derivation of Name—"Hemp," from the fibrous character of the stem; "Indian" in allusion to its American growth; "Apocynum cannabinum," from *apo* (from), *kuon* (a dog), and *cannabis* (hemp).

Chemical Composition—There is resident a bitter principle, together with apocynin, the active principle of the drug. It also contains tanin, a resin, fecula, wax, lignin, and gallic acid.

Preparations—A fluid extract is prepared; dose, ℥iij-iv. It is also given in pill form or powder; dose, grains iv-vi. Twenty grains produce purging and vomiting.

Antagonists—Opium, iron, etc.

Synergists—The hydragogue cathartics.

Physiological Action—Indian hemp is diuretic, emetic, and cathartic. In large doses it nauseates, diminishes the pulse-rate, and exhausts the system.

Therapeutical Applications—Indian hemp is peculiarly fitted to be beneficial in ascites. Several interesting cases, successfully treated, are published. In intermittent fever it is said to have a fine anti-periodic power.

Jaborandi.

Synonyms—Jaborandi, pilocarpus pinnatus.

Botanical Details—Jaborandi belongs to the family of the Rutaceæ; sex. syst., decandria monagynia. The leaves, which are arranged in alternation, are impari-pinnate, and with three to ten leaflets: shape of leaves, oblong-lanceolate; in color, pellucidly punctate. Fruit consists of five perfect carpels, more or less full. Seeds are reniform, resembling a small bean, black and shining, five to each carpel.

It is to be regretted that we have no perfect and reliable description of the jaborandi plant from which we can quote in this place. Some incomplete, and, it is to be feared, imperfect descriptions, have been given, but they are not to be relied upon. There remains to be written the botanical details of the herb, a task to be undertaken by an actual observer.

Official Appearance—The leaves and stems are more or less broken and pulverized. The color is a greyish-brown.

Habitat—Brazil; in the forests of the Amazon, and especially in the country close to the north of Rio de Janeiro.

Medicinal Portion—The leaves and tender stems.

Chemical Composition—Jaborandi contains among its many ingredients tannic acid, an oil, a gum, and the alkaloids pilocarpia and jaborandine.

Preparations—Tincture jaborandi ($\frac{3}{4}$ iv); dose, 3 ss-ij. Fluid extract jaborandi; dose, 3 ss-3 ii. Infusion jaborandi ($\frac{3}{4}$ ij-Oj); dose, 3 j- $\frac{3}{4}$ ij. Pilocarpia; dose, $\frac{1}{3}$ gr.

Antagonists and Incompatibles—The metallic salts, belladonna, caustic alkaloids.

Synergists—The motor depressants, aconite, gelsemium, conium.

Physiological Action—There is nothing unpleasant in the pungent and peppery taste of jaborandi, but its after-acridity is not only disagreeable in its contact with the fauces, but is prone to nauseate the stomach, as if by corrosion, and to cause well-defined and persisting gastric distress. Its systemic action is both speedy and certain, and almost immediately on taking the drug into the stomach the face flushes, and soon perspiration beads from the skin, and an abundant flow of all the watery secretions ensues. Drowsiness follows, and with it comes a sense of chilly numbness, pallor, full rise of the pulse, augmentation of temperature, and an apparent dim loss of the force of the senses. The system remains weak and debilitated for some time. The elimination is by the excited organs, the secretion of urine being in reality lessened. Not infrequently a watery diarrhoea is produced, and it is said it may cause œdema of the lungs.

Jaborandi weakens the heart. This is observed more frequently in adults than in children. But the extent to which this effect is carried is varying as to the patient. All who have tried the drug know that some are much more susceptible to it than are others.

Historical Details—A few words on some points of mere detail will be not only interesting, but illustrative and denotive. Two thousand years ago one of the most popular and best known of the indigenous plants of Southern Europe and Western Asia was rue. It had a well-founded medicinal reputation, its flowers beautified every garden, and its praises were on the lips of Ovid and Pliny. The Romans used it as a common

table condiment, the Greeks regarded it as a universal antidote, and the priests of the Hebrews valued it as a tithe. Across the ocean, at the same era, the natives of Brazil prized as highly, and praised as strongly, another species of rue, the plant jaborandi. To-day rue is remembered by the medical profession as an herb that our grandmothers hung in their chimney-corners with catnip and sage, and extensively infused for amenorrhœa, strangary, and renal disorders. It is now rarely found in any physician's office,—few medical men know anything of it,—and much less rarely is it used in our prescriptions. Now when rue is in the decadence of its worth, jaborandi is coming into its place as a drug destined to a scarcely limited popularity.

Abortion
From the time that Continbo first introduced jaborandi to the profession in Europe, there has existed an unwillingness to admit it to a place in the family of the Rutaceæ. Still without denial of the relationship, jaborandi has worked out for itself a position once occupied by its European prototype. As rue had a reputation for causing abortion, so now has jaborandi. Rue was a stimulant; jaborandi stimulates. Rue provoked an increase of the secretions, and jaborandi is on the same account as famous. Beyond all controversy there are many evidences of a relationship, more or less intimate in its character, and determined other than by reference to any family ties.

Rue has come to be a forgotten drug. The plant is but little known. The traveller in the south of Europe, seeking some virtue in the campagna at Rome, or wandering in the vine lands about Vienna, treads under foot many a beautiful flower or herb, and brushes against a hundred unknown shrubs. He recognizes nothing that savors of worth in one plant that grows among others—a bushy, heavy-foliaged plant, rough barked, with long and fleshy sessile leaves, hiding among them stars of golden flowers. In it he does not see any burden of good or ill. Only when he plucks one of its leaflets does he find by the emanation of peculiar odor, and acrimonious nettling, that he handles the ruta *graveolens*. Familiarizing himself with the rue, he sees in the Brazilian jaborandi a long obovate leaf that resembles it, and a similarly corymbaceous yellowish flower.

Rue yields a very abundant and highly volatile oil, derived from the glandular vesicles of the leaves. In the pellucid leaves of the jaborandi a like oil dwells. Rue contains a gum, chlorophyll, starch, albumen, malic and rutinic acid, and lignin. Jaborandi has also a gum, starch, resin, tannic acid, jaborandi, and pilocarpia, besides some few other unimportant ingredients. The active principle of jaborandi is the alkaloid pilocarpia, possessing in itself all of the complex physiological powers of the plant. Rue names its volatile oil as its essential virtue. Although the chemical composition of jaborandi is unsettled, yet we think that there may be grounds for detecting rutinic acid as its coloring principle, thus bonding the two plants into one family.

There are other data confirmative of the relationship between the two, but they need not be cited. Rue has lost caste, and is delegated to a place in remote antiquity. It has its own certain value, but in its place, as its successor, jaborandi has risen, and is asserting its independent right to a prominent place.

The Antagonism of Action—I wish to introduce here some of the main points recently brought out by Bartholow on the antagonism existing between jaborandi and belladonna, which (says the distinguished author) “is one of the most exact in the whole series of antagonisms of medicinal agents.” Jaborandi increases the cardiac movements at first, but afterward the heart becomes feeble; belladonna maintains a quickened heart beat. Jaborandi contracts the pupil; belladonna dilates. Jaborandi increases the secretions of the skin and salivary glands; belladonna diminishes these. When the saliva and perspiration are fairly pouring out from the action of jaborandi, their flow is immediately arrested by the administration of belladonna. In explanation of this it has been demonstrated that atropia paralyzes, while pilocarpia stimulates the end-organs of the nerves of these glands. As I have elsewhere said, the increase of secretion is not limited to the salivary and sudorific glands, but is as perfect in the mucous membrane of the intestines, nose, and bronchi. In as decided a manner belladonna arrests these secretions. Jaborandi causes an after-sensation of exhaustion, which sensation declines on the administration of belladonna. Jaborandi tends to

Rue

Pupil

Secret

End-organs

cause a rise of temperature, which, however, soon declines. Belladonna forbids this decline. Jaborandi depresses the arterial tension, which is raised by belladonna.

There are, however, it is but just to say, some mutual agreements between the two drugs. This is true in respect to the nervous system of animal life, and the existence of any antagonism on the brain is not probable. Belladonna does not affect the nausea caused by jaborandi; but it is claimed that belladonna has an indirect cessative action on that of jaborandi. This parity of interests may or may not be influenced by the caprices of individual constitution, yet it is not to be legated to equality of connection.

Therapeutical Applications—Nearly two-and-one-half centuries ago, Dr. Piso wrote, that in his travels he had seen “divers, as it were, in an instant, redeemed from death only by drinking a recent infusion of the root of jaborandi.” This witness to the remarkable powers of the drug has been corroborated by many within a comparatively short time; and it is being found by the experience of the profession that it can be applied to several important uses. The time is yet to come in which we can write the real therapeutics of the drug, but that which we now know can be easily written.

In diabetes insipidus, jaborandi tends to reduce the quantity of urine, and may be advantageously employed.

In dropsical disorders—ascites, hydrothorax—there exists a condition where the use of jaborandi is indicated. In uræmia good results are had from like treatment.

In certain skin diseases, characterized by a harsh, dry skin, pilocarpin, acting on the sweat glands, is curative.

In the night sweats of consumption pilocarpin is useful, but it should not be used until the remedies acting by opposition have been tried and found wanting.

Jaborandi stands at the head of the diaphoretics, and there is no better remedy for influencing the secretion of the sweat glands. Especially is it of advantage in promoting such an effect in rheumatism, bronchitis, and pneumonia.

Jaborandi increases the flow of milk, and may be safely employed for that purpose, if such an agent is indicated.

milk

Recently, in Germany, pilocarpin has been used successfully in intermittent fever. One to two centigrammes of chlorhydrate of pilocarpin are injected two hours before the attack is anticipated.

Burkhart reports pilocarpin curative of asthma, where chronic bronchitis complicates, and it is said to be equally as effective in simple bronchitis, even though perspiration is not sought.

Allusion has been made to rue having once enjoyed the reputation of being "the universal antidote." In some measure jaborandi may claim the same honor. It eliminates mineral poisons, and especially mercury. It antagonizes the action of the poison of syphilis. Remarkable relief is experienced through this action of elimination in retention of urine, where the system is gradually being poisoned by accumulation of urea in the blood, and a catheter cannot be passed.

In the nephritis of scarlatina, and, indeed, in chronic nephritis, one-third grain pilocarpia, subcutaneously, produces complete diaphoresis.

Rosenkranz has treated pleuritis, peritonitis, and simple uncomplicated pericarditis, with large doses of pilocarpia, meeting with varying success. Considering this application to the treatment of dropsical effusions, Jacobi has suggested that ordema glottidis would theoretically merit similar treatment.

Though jaborandi tends to cause pulmonary oedema in a debilitated subject, yet when that disorder occurs in a strong, plethoric person, ten-minim doses, hourly repeated, have been resorted to with advantage.

Strognowski has reported a case of eclampsia relieved by hypodermics of pilocarpin, and it is possible that this treatment may be invariably successful. In this connection it may be said that it has been reported that the use of jaborandi in the treatment of elecampsia,—or of any other disease,—during pregnancy, will produce premature labor. Welpower and others, however, deny that jaborandi possesses oxytocic power.

In ophthalmia pilocarpin has been successfully used. Schmitz reports that in treating patients for this disease the use of the pilocarpin "caused a new crop of hair to appear on the heads of those patients previously quite bald."

In dyspnœa due to dryness of the bronchii, jaborandi, by exciting the flow of the bronchial secretion, is directly an agent of relief.

Children
It is remarkable that children can bear larger doses of jaborandi than can adults; and with this consideration it is patent that the use of the drug in the diseases of children should be more relatively successful. In scarlatina, bronchitis, and acute rheumatism, it has proven of decided value. In giving it to the little patients, care should be taken to begin with small doses, which may be gradually increased. Weiss directs that if the child is very weak a few drops of ether should be added to the pilocarpine (*muriaticum*) to be given subcutaneously.

Cholera
Dr. Simmons, of Yokohama, states that jaborandi is of undoubted value in the treatment of cholera Asiaticus. The suppression of urine, so common in that disease, yields to this drug, and great relief follows.

As abbreviating the course of episcleritis, the hypodermic use of pilocarpin is attended with success. The dose is five drops of a solution of twenty centigrammes to two grammes. The judicious use of iron in connection with this treatment, is of course rationally indicated.

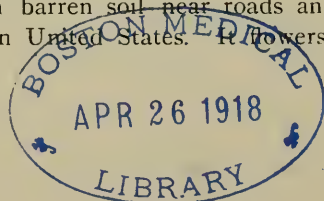
Euphorbia Corollata.

Synonyms—Large flowering spurge, milkweed, picac, snakes' milk, hippo, "ipecac," apple root, Indian physic, emetic or bowman's root, etc.

Family Relations—Cypress spurge, eyebright, caper.

Botanical Details—Sex. syst., Dodecandria Trigynia. Nat. ord., Euphorbiaceæ; involucre, caliciform, with dentures; stamina, twelve or more; receptacle, squamose; female flower, solitary, stipitate, naked; capsule, three-grained. The plant milkweed is erect, the stem round and simple, two to five feet high. The root is large, yellow, perennial, and branching. The leaves are oblong-ovate, and irregularly placed. The flowers are umbelliferous, of a white-purple color.

Habitat—In barren soil near roads and farmyards, throughout the northern United States. Flowers in August.



Medicinal Portion—The root.

Official Appearance—The root as dried is brown, with shrivelled cortex, and commonly in pieces an inch thick and several inches long.

Derivation of Name—"Euphorbia," after Euphorbius, a Roman physician; "Milkweed," from its milky juice.

Chemical Composition—The medicinal virtues reside in the thick cortex, and, it would seem, are due to an active but yet undenominated principle. I have never been able to isolate such an alkaloid, but that it exists is not improbable. There are also found wax, resin, salts of lime, and glucose.

Preparations—The medicine is administered in the form of the powdered root (dose, grains x-xv), and in infusion.

Antagonists—Physiologically, all of those remedies which act as cerebral stimulants.

Synergists—Jalap, more than any other agent; mercury, elaterium, acetate of potassium, etc.

Physiological Actions—This medicine is active as an emetic, and tends to purge. It is also diaphoretic, expectorant, and diuretic. It seems to act as an irritant of the intestines.

Therapeutical Applications—As a remedy for ascites, the root of *E. corollata* is invaluable. I have faith in it from actual observation, and regard it as one of the best of the auxilliary remedies for dropsy. It is available as an emetic, but is much too harsh. For bronchitis, laryngitis, and nasal catarrh it is recommended because of its expectorant powers. It is destined to work out a reputation for dropsical affections, but as a diaphoretic has an uncertain place.

Hair-Cap Moss.

Synonyms—*Polytrichum*, *juniperum*, *robin's rye*.

Family Relations—Maiden hair, the musci.

Derivation of Name—"Polytrichum" signifies "many-haired;" *Juniperum*, *juniper*.

Medicinal Portion—The entire herb.

Botanical Details—Nat. ord., *Muscus*.

Habitat—This moss is found in almost all parts of the United States, and is abundant in New England.

Chemical Composition—Undetermined.

Preparations—An infusion is the common form of administration.

Physiological Action—Hair-cap moss is an active and potent diuretic.

Therapeutical Applications—This remedy is reported to have been most successful in the treatment of ascites. The patient is allowed to drink of a strong infusion of the herb, *ad libitum*. It is also pronounced of some value in treatment of dysuria. Care must be taken in its use, as it is not only exceedingly powerful as a diuretic, but owing to our limited knowledge of its properties is also treacherous.

Shepherd's Purse.

Synonyms—*Capsella bursa pastoris*, *thlapsus bursa pastoris*, cocowort, St. James wort.

Botanical Details—Nat. ord., Cruciferae; sex. syst., Tetradyamia Siliculosa; genus, *Thlapsus*.

Habitat—Europe; naturalized in America.

Medicinal Portion—The entire plant.

Derivation of Name—The common name is derived from a fancied resemblance to a shepherd's purse.

Chemical Composition—Although its analysis is incomplete, it seems probable that its active principle resides in a volatile oil.

Preparations—Unofficinal. A tincture, a syrup, a fluid, and a solid extract, have been prepared.

Physiological Action—The taste of the plant is bitter and pungent, with some astringency. The action of the medicine is diuretic, hæmostatic, antiscorbutic, and slightly tonic.

Therapeutical Applications—Shepherd's purse is possessed of more or less diuretic powers, and is consequently a remedy for ascites. On the strength of its powers of diuresis it is recommended in œdema glottidis. In hæmaturia and other hemorrhages it has some worth. Kissel has used it with success for chronic diarrhœa. It is named as a remedy in "all forms of kidney disease."

Plantago Major.

Synonyms—Plantain, centinervia, way-bread, etc.

Habitat—Europe and America. In lately-cultivated fields and by the road-sides.

Derivation of Name—Plantain, plantago, from *planto*, "a foot."

Botanical Details—Nat. ord., Plantaginaceæ; sex. syst., Tetandria Monogynia. A perennial herb. Root branching, white and filamentous; leaves ovate, coarse-veined, glaucous; seeds flea-colored, half a line in length, shining, and concave-ovate.

Medicinal Portion—The root and leaves.

Chemical Composition—Plantain contains a mucilage, starch, a bitter principle, salts of lime, and lignin. The composition is not fully understood.

Preparations—Unofficial.

Physiological Actions—The taste of plantain is saline and bitter. It is diuretic, deobstruent, refrigerant, and astringent.

Therapeutical Applications—Plantain has a value as a remedy for ascites, and deserves to be better known. It is also recommended in intermittents, diarrhœa, and hæmaturia. It is used as a cataplasm for ulcers. But taken all in all it is not a certain remedy in any disease.

Urtica Dioica.

Synonyms—Common nettle, urtica, *U. hispida*, cnidé, pyrethrum.

Habitat—Europe and the United States.

Medicinal Portion—The entire herb.

Botanical Details—Nat. ord., Urticaceæ; sex. syst., Monœcia Tetrandria. A perennial plant, growing in waste places all through the country to a height of three or four feet. Leaves, cardiform-ovate and serrated, downy beneath and yellow-green above. Flowers are umbelliferous spikes, appearing in July. Stalk grey and bristly.

Derivation of Name—*Urere*, "to burn."

Preparations—Formerly officinal. Not so at present.

Chemical Composition—The active principle seems to be a volatile oil. The irritant effect is due to formic acid in the hairs. A close analysis has not yet been made.

Physiological Action—Urtica is a diuretic, and an astringent, with a slightly tonic action. In provoking active diuresis it has not a harsh effect on the kidneys, as many of our most powerful diuretics have. Its principle readily passes into the circulation, where its irritant powers stimulate the capillaries as a tonic.

Therapeutical Applications—In ascites, and especially in the dropsy of scarlatina, urtica is, as a diuretic, a notable remedial agent. In nephritis, and in cases where there is a tendency of the kidneys to inactivity, urtica has the desired stimulant effect. In rheumatism, where the urine is scanty and heavy with lithates, urtica relieves by local action. Benavente recommends its use in uterine hemorrhage. It was formerly a remedy for jaundice, but has no hepatic action. As an anthelmintic it has to be tried.

Although the use of urtica as an application in paralysis is an "old woman's remedy," the author believes that in cases of apoplexy, or other paralytic states, the external irritation to be had by rubbing the torpid parts with the nettle is valuable, and to be commended.

American Arbor Vitæ.

Synonyms—Thuya occidentalis, T. obtusa, tree of life, cupressus arbor vitæ.

Habitat—The Eastern United States.

Botanical Details—Nat. ord., Coniferae, Cypress tribe. Cedar. Thuya. This is a rare American tree, usually not more than five feet in height, or ten inches in diameter. The trunk is rough and rarely straight; bark white and furrowed; wood reddish and fine-grained; leaves evergreen, scale-like, in four rows, flat and pinnate; male flowers minute, pairs forming an ament, with two or four anthers; female flowers scale-like, six to twelve; cones consist of six to ten scales, each with two seeds.

Medicinal Portion—The leaves.

Derivation of Name—"The tree of life" is the literal meaning of the common term. Thuya is derived from the Greek *θυος*, "incense."

Preparations—Unofficial. An extract, fluid extract, and tincture may be prepared. It is frequently infused.

Chemical Composition—Several analyses have been made, and

the presence of a volatile oil, wax, sugar, gelatin, resin, and tannic acid have been determined. Among principles obtained, are pinipicrin, thujin, a coloring principle, thujetin, thujigine, and pinotannic acid.

Physiological Action—From the data which we now possess it is impossible to give details of the action of this herb definitely.

Therapeutical Application—Boerhave recommends this medicine in ascites, but it has fallen into disuse, and its value cannot be determined. It is used in Germany with varying success in the treatment of intermittent and remittent fevers, rheumatism, and scorbutus. In dysmenorrhœa it is useful.

As a topical remedy, the tincture frequently applied is curative of cutaneous eruptions and syphilitic vegetations. In acute arthritis and rheumatism, an ointment made of arbor vitæ leaves and cosmoline is said to be an excellent remedy.

Sambucus Canadensis.

Synonyms—Elder, acte, infelix lignum, etc.

Habitat—Indigenous to North America.

Derivation of Name—The *sambuke*, an ancient musical instrument, is said to have been made of its wood. Hence its name.

Medicinal Portion—The bark, berries, and flowers.

Botanical Details—Nat. ord., Caprifoliaceæ. Sex. syst., Pentandria Trigynia. The elder is a shrub about ten feet in height, growing in moist places. The stem is branching, with a rough, grey bark, and a large pith. Leaves pinnate, and composed of three or four pairs of obovate, smooth, green leaflets. Flowers in cymes, small and white, simple and five-cleft in calyx and corolla; stamens five; stigmata five, brown, and sessile. It blooms in June, and in September ripens its small, globular, and deep purple berries.

Family Relations—The genus *Sambucus* contains about twenty species of perennial shrubs. *S. nigra*, the European elder, is not unlike *S. Canadensis* in its medicinal virtues.

Chemical Composition—The flowers contain a heavy volatile oil. The berries abound in sugar and malic acid. The bark contains a volatile oil, valerianic acid, resin, albumen, and various other ingredients.

Preparations—The only officinal is aqua sambuci. There are also prepared the inspissated juice; dose, as a laxative, ʒ ss-j.; as a diaphoretic, ʒ j-ij. The inner bark is infused; dose, ʒ j.

Physiological Action—The flowers are diaphoretic and discutient; the berries aperient and sudorific; the bark is a hydragogue and purgative, and in small doses a deobstruent.

Therapeutical Applications—The hydragogue character of elder makes it of some value in ascites. It is used in infusion, and drank freely to catharsis. The inspissated juice of the berries is employed in gout, rheumatism, syphilis, and cutaneous eruptions. It is also alterative in epilepsy. The flowers are sometimes used "as a fermentation for a mild ulcer." They are also incorporated in an ointment which has the name of value as a discutient, and its free application in ague cake is remedial.

Epigæa Repens.

Synonyms—Trailing arbutus, "May flower," ground laurel.

Habitat—From the Savannahs of Georgia to the swamps of the Saskatchewan.

Medicinal Portion—The leaves and stems.

Botanical Details—Family, Epicaceæ (the heaths), epigæa. Before the spring has budded out from beneath the edge of the snow banks, on rocky hills and sandy woods, appear the fragrant flowers of this harbinger of spring. The stem trails upon the ground, among the decayed forest leaves, throwing out on either side bunches of long, fibrous roots, bearing leaves and flowers. The flowers are in terminal corymbs. At the base of each footstalk are three concave, green bracts, ending in a long point; calyx, five-cleft; corolla, a pearly white or rose-colored tube; anthers, yellow. Leaves alternate, on long, hairy footstalks, of an oblong shape, mucronate, coriaceous, evergreen; the stigma is headed, and five-pointed; style, straight; ovary, ovate and hairy.

Preparations—Are extemporized.

Chemical Composition—In the spring of 1881, I had abundant opportunity during a residence in Hinsdale, N. H., to acquire a thorough chemical knowledge of epigæa. Though it abounded on the hills of the Ashenelot, and although I gathered it with unspar-

ing hand, I was unable to perfect an analysis. It contains a large percentage of tannin and formic acid, as well as an active principle, which should be christened arbutine, a neutral substance (ursone?), and an amorphous principle (ericolin?).

Physiological Actions—I submit that epigæa and uva ursi are chemically analogous. Like uva ursi, epigæa is diuretic, astringent, tonic, and laxative. Elimination is by the kidneys, where it has a peculiar topical action.

Therapeutical Applications—Epigæa is adapted to the cure of ascites, and all dropsical conditions. It is more particularly a urino-genital, useful in gonorrhœa, vesical catarrh, pyelitis, and all irritated conditions of the bladder or urinary apparatus. Ives states that it has cured when both buchu and uva ursi have failed.

Purslane.

Synonyms—Portulacca, andrachne, verdelaga.

Habitat—A common garden weed.

Medicinal Portion—The entire plant.

Preparations—Unofficial.

Botanical Details—This is an annual plant, native to gardens all over the globe. Stem succulent and prostrate; leaves fleshy, alternate, and obtuse-crenate; flowers, sessile; capsule, one-celled; seeds numerous.

Chemical Composition—Analysis of the fresh leaves shows the presence of coloring matter, traces of tannic acid, bitter extractive, salts of lime, and other ingredients.

Physiological Action—Purslane is diuretic, anti-scorbutic, and has a special action on the urinary and genital organs.

Therapeutical Application—Purslane claims a place in the treatment of ascites, and as a mild and efficient diuretic, fills it well. It is in these days that substitutive medicines grow rank, and purslane is said to be a "substitute for uva ursi." It is of some value in cystitis, gonorrhœa, and vaginitis.

Virginia Creeper.

Synonyms—Ampelopsis quinqueflora, American ivy.

Habitat—Indigenous to America.

Medicinal Portion—The bark and fine twigs.

Botanical Details—A common, wild plant, of the order vitaceæ. It is found in moist places, clinging to stumps and rocks, or growing among the grass. It has five lanceolate leaves in a group, and the groups are alternate. Their color is bright green in summer, brilliant red in autumn. Flowers of a greenish white.

Chemical Composition—I have been unable to arrive at a complete analysis, and have none to which to refer.

Physiological Properties—The Virginia creeper has been used by eclectics as an expectorant and tonic. Goss calls it an “anti-psoric.” The contact of the leaves with the skin causes an eruption.

Therapeutical Applications—In scrofula and ascites, this drug is successfully used. I have never been able to prove its effects, but am inclined to suggest to homœopaths that it may be efficacious in skin diseases! It produces an eruption, and so *similia similibus*.

Carrot.

Synonyms—Carota, dancus, carotte.

Habitat—Gardens almost universally.

Medicinal Portion—The seeds and root.

Preparations—(Unoff.) Infusion.

Botanical Details—Order, umbelliferae. Sex. syst., Pentandria Digynia. Plant greyish green, hispidly pilose. Root fusiform, yellowish. Stem 2–4 feet high, slender, terete. Leaves pinnatifid. Flowers in ochroleucous umbels. Fruit hispid.

Active Principle—A substance named carotin, occurring in ruby, odorless crystals.

Therapeutical Applications—Carrot seeds are useful in ascites, and the root may also be used. A poultice of carrot root is of repute in phagedenic ulcers. The infusion of carrot-seeds is of value as an aphrodisiac in sterility. In the treatment of flatulent dyspepsia, it is a grateful aromatic, carminative rather than curative.

Antirrhinum Linaria.

Synonyms—Toad flax, linaria vulgaris, osyris.

Habitat—Native of Europe. Grows in Middle States.

Medicinal Portion—The entire herb.

Preparations—The infusion; an ointment.

Botanical Details—Nat. ord., Scrophulariaceæ. A perennial, herbaceous plant, growing to a height of two feet. Leaves linear, and narrow. Flowers in terminal, yellow spikes.

Physiological Action—The odor of the plant is heavy and disagreeable, and the taste herbaceous, saline, and bitterly acrid. The essential properties are diuretic and cathartic.

Therapeutical Applications—In the treatment of ascites, this plant in infusion is advantageously used. It is also recommended for icterus and cutaneous disorders, but its reputation is limited. An ointment which is made of the leaves has been used for hemorrhoids.

Asparagus.

Synonyms—A. officinalis, sparrowgrass, "speragus."

Habitat—Native of Europe. Universally cultivated.

Medicinal Portions—The young shoots and root.

Preparations—(Unofficial). Tincture; dose 3 j. Syrup; dose ̄j–ij. Extract; dose 3 ss–j.

Botanical Details—Ord., Asphodeleæ. Sex. syst., Hexandria Monogynia. Root perennial, fibrous. Plant attains a height of six feet. The turion, or young stem, is simple, stout, and fleshy, with leaves like oppressed scales. As the stem grows it becomes fibrous, and ramifies pannicular. Leaves narrow, linear, flat and fascicular; a stipule to each fascicle. Peduncles in lateral pairs at base of alternate branches, slender, and terminal clarate. Calyx, greenish yellow. Berries globose, red. Floral season, May to July.

Chemical Composition—A crystallizable principle, named asparagin, is abundant. Among other ingredients are glucose, starch, lignin, extractive, and earthy salts.

Physiological Action—Asparagus is diuretic, and communicates its peculiar odor to the urine. It has been held, and as often denied, that asparagin is a cardiac sedative. That it has an influence on the heart, seems to me probable from my experience with the drug. It is undeniably sedative, reducing the pulse, and producing a depressing frontal headache, *tininitis aurium*, muscular weakness, and a peculiar tremor. These effects continue for 20 minutes after reaching their height, and the pulse is irregular for some time after.

I consider its action direct and without media. Asparagus is also aperient, deobstruent, and slightly diaphoretic.

Therapeutical Applications—In conjunction with other cardiac sedatives, asparagus is palliative in all heart diseases attended with excessive action. In dropsical affections, asparagus would be estimable were it not for its tendency to irritate the mucous membrane of the urinary passages. It is, however, useful as an adjunct to other diuretics. Rheumatism has been treated with this remedy, and is said to have been relieved by it.

Enonymus.

Synonyms—Wahoo, "burning bush," spindle tree.

Habitat—Indigenous to north and west of United States.

Medicinal Portion—The bark.

Preparations—The best preparation is the elixir of Parke, Davis & Co.; dose 3 j-iv.

Botanical Details—Order celustraceæ. Sex. syst., Pentandria Monogynia. A shrub having quadrangular branches; oval, oblong, serrate leaves; flowers in cymes, dark purple; capsule smooth and lobed, of a crimson color.

Physiological Properties—Wahoo is a hydragogue cathartic, and is decidedly alterative. It is also tonic, diuretic, and anti-periodic.

Chemical Principles—Euonymin, asparagin, resins, oil, glucose, wax, starch, albumen, pectin, various salts and acids.

Therapeutical Applications—As a diuretic in ascites, the use of enonymus is attended with advantage. It is excellent in hepatitis, constipation, and enlargement of the spleen. Its use in intermittent fever is at best uncertain.

ASTHMA.

- | | |
|--|--|
| 1. Bromides. | 14. <i>Ailanthus glandulosa</i> . (<i>vide diarrhœa, etc.</i>) |
| 2. Eucalyptus. | 15. <i>Mullein</i> . (<i>vide diarrhœa, etc.</i>) |
| 3. Quinia. | 16. <i>Jamaica dogwood</i> . (<i>vide neuralgia</i>) |
| 4. Electricity. | 17. <i>Quebracho</i> . (<i>See note.</i>) |
| 5. Chloroform and ether. | 18. <i>Mistletoe</i> . (<i>See note.</i>) |
| 6. Opium. | 19. <i>Rosolis</i> . (<i>See note.</i>) |
| 7. Belladonna, Duboisia. | 20. <i>Parw-parw seeds</i> . (<i>See note.</i>) |
| 8. Lobelia. | 21. <i>Grindelia robusta</i> . (<i>See note.</i>) |
| 9. Iodides. | 22. <i>Verba santa</i> . (<i>See note.</i>) |
| 10. Strychnia. | 23. <i>Sumbul</i> . |
| 11. Chloral. | 24. <i>Asclepias syrica</i> . (<i>See note.</i>) |
| 12. Amyl nitrite. | |
| 13. <i>Areca nuts</i> . (<i>vide diarrhœa, etc.</i>) | |

DESCRIPTIVE NOTES.

Quebracho.

Synonyms:—*Aspidosperma Quebracho Blanco*.

Habitat:—Argentine Republic and the mountainous region of neighboring States.

Derivation of Name:—The word "quebracho," which literally means "breaking the axe," is a name which very hard wood commonly receives by the natives.

Botanical Details:—Natural order, Apocynæ; allied to dogsbane and Indian hemp. Departing from our usual custom we will call attention to remarks under the head of "historical," as embodying that which we know of the botany of quebracho.

Physiological Action:—After administration the face flushes, diaphoresis occurs, drowsiness ensues, and no objective signs on the part of heart and lungs appears. Its *modus operandi* has not yet been confirmed, as it has opposite effects on man and other animals.

Chemical Composition—While we write an intelligent dissection of quebracho is going on with a view to determine the yet unwritten chemical anatomy of the drug. Fraude has found an alkaloid, aspidospermin, and in Hansen's study of the tree, his microscope will yet determine its chemistry.

Historical—In 1857 M. Jacques spoke of this tree as follows:

"Quebracho, two varieties, the white and red, differing from each other not only in the color of their wood, but also in the structural peculiarities of the flower and fruit. The small pointed myrtle-like leaf is not deciduous in winter, the green color merely deepens, and new leaves of a more delicate color sprout from the ends of the twigs; the intense solar heat, however, causes them to fall in the summer. Its wood is of extraordinary close texture and hardness."

Burmeister, a few years later, sent the first specimens of the fruit and twigs of quebracho to Europe, and wrote in the description of his travels:

"The landscape becomes more picturesque by the appearance of a tree characteristic of this region (*i. e.* Cordova Valley), viz.: quebracho. This tree presents the appearance of an erect high trunk carrying a spreading crown whose drooping extremity bears finely pointed twigs. This tree is of great commercial importance to the country on account of the value of its wood, which is used for building purposes, particularly the variety known as "Quebracho Colorado," whose wood of extreme hardness is of a blood-red color. The leaves of the former small, fine, simple lanceolate, while those of "Q. blanco" are broader and ovate-lanceolate.

Schlectendal, classifying Burmeister's specimens, named the one *Aspidosperma Quebracho Blanco*, the other *A. Q. Colorado*. Griesebach, in 1872, said, "A decided error was made by him (Schlectendal) in classifying *Q. Colorado* as belonging to this species, (*Aspidosperma*.)" and proceeded to point out a combination, which will probably obtain. Griesebach succeeded in classifying *Q. Colorado*, and *Q. Blanco* is now the *Quebracho*.

In 1880, Dr. Hansen of Erlangen wrote:

"*A. Quebracho* is a tall tree with a perfectly straight

trunk from two to three feet in thickness, with a moderately large oval crown and sparse foliage, the extreme twigs being very fine and pendent. The leaves stand in triple whorls, they are leathery, lanceolate, entire, smooth, the upper and lower sides both presenting the same appearance. The leaf ends in a sharp pointed thorn. The flowers are in cymes which have the forms termed dichaciac. The arrangement sometimes resembles the helicoid cyme."

At the Vienna Exposition in 1873, quebracho wood was first shown. It was of various subdued colors from a chocolate to a reddish-brown, and of close texture. Hansen has written the immediate anatomy of the wood, which though scientifically of interest is not important from our point of view. It occurs in commerce as a tanning material.

Prof. Penzoldt, also of Erlangen, was the first (in 1879), to call attention to the quebracho bark as a medicinal agent. His experiments, which were beautifully scientific, were exhaustive, and paved the way to our present knowledge of the remedy. Without quoting directly from this authority, we shall take pleasure in incorporating the substance of his papers into our account elsewhere.

The German physicians have paid their discriminating attention to the drug, and now coming before the American members of the profession it receives that worth of thought that names it a most valuable acquisition of recent years.

Therapeutical Application.—The first use to which Penzoldt put quebracho was in the treatment of emphysema of pleurisy. The result was such that arriving at the conclusion that quebracho diminishes respiration and dyspnœa, he applied it to asthma, bronchitis, phthisis, and pneumonia, ever with a mead of success. In œdematous conditions of the lungs, and as well in tuberculous affections its use is uncertain. It relieves dyspnœa, though excessive doses cause the same state instead of alleviating it. Cardiac dyspnœa has been benefitted by it.

Berkart speaks favorably of quebracho as a remedy for asthma. The dyspnœa is indicative for its use, but prolonged application is apt to be attended with unpleasant secondary symptoms.

Berthold has observed that quebracho is curative of diar-

rhœa, a fact to be accounted for by its astringency. Other diseases to which it has been applied are pleurisy, bronchial catarrh, "mitral regurgitation."

Relief of dyspnœa means renewal of blood-oxygenation and as increasing the strength of respiration, and facilitating supply of oxygen, quebracho is almost unequalled.

Mistletoe.

Synonyms—Viscum album, iux, gui.

Habitat—A parasite on various trees in Europe.

Medicinal Portion—Wood, leaves and berries.

Botanical Details—Order, loranthaceæ; Sex. syst. Diœcia Tetrandria. An evergreen shrub, forming a pendant bush, two to five feet in diameter. The berries are white, pisiform, and viscid. Stem 9-18 inches long, terete, branchy. Leaves an inch long, nerved, smooth, fleshy. Flowers small.

Physiological Properties—The berries are cathartic, in large doses toxic. The plant is emetic, and oxytotic, antispasmodic and laxative.

Therapeutical Application—The antispasmodic properties of mistletoe are taken advantage of in the treatment of asthma, epilepsy, palsy, and the neuroses. Long recommends it as an oxytotic, superior to ergot, but this is an unproven, though not impossible fact. If it has oxytotic properties they are at best weak, and do not deserve attention.

Rossolis.

Synonyms—Sundew, drosera rotundifolia, drosium.

Botanical Place—Order Droseraceæ.

Physiological Properties—The taste is bitter and acrid, and the after sensation is that of causticity. Properly a "pectoral."

Therapeutical Application—Asthma is kindly relieved by rossolis, but it is not always equally beneficial. In pertussis, especially the pertussis of adults, it is a remedy of no mean value. It is recommended to give five drops of the tincture.

For dyspepsia it is remedial. Externally applied, rossolis is rubefacient, and its caustic qualities have been utilized to destroy warts and corns.

Paw-Paw Seeds.

Synonym—Uvaria triloba.

Remarks—Paw-paw seeds are said to be useful in asthma and as an emetic, but there is no evidence by which to commend them.

Grindelia Robusta.

Habitat—The Californian hills.

Position—Unofficial.

Preparations—Fl. ext.; dose f 3 ss-j.

Medicinal Portion—The entire plant is medicinal.

Botanical Description—An herbaceous plant, having an erect stem, 1-2 feet high, without branches, and terminating in a spherical head of compound white flowers.

Physiological Properties—Grindelia robusta is an expectorant and tonic, chargeable with both a local and constitutional action.

Therapeutical Applications—This remedy has earned for itself the reputation of being a specific for asthma, and needs no other recommendation than its own merits. Externally it is used for vaginitis, iritis, ulcers, burns, scalds, and genito-urinary catarrh. For bronchitis and pneumonia, in phthisis and pertussis, in hay-fever and laryngitis, it is remedial.

Yerba Santa.

Synonym—Eryodiction Californicum.

Habitat—Northern California, also South America.

Derivation of Name—Literal meaning, "holy herb."

Position—Unofficial.

Medicinal Portion—The leaves, principally.

Preparations—Fl. ext.; f 3 $\frac{1}{4}$ -j.

Botanical Details—Order, Hydrophyllaceæ. The plant is 2-4 feet high, branching; with serrate, oblong, and richly varnished leaves. Flowers are pink, in racemes. Fruit, a one-celled capsule.

Chemical Composition—The leaf contains about forty per cent. of a gum resin, supposed to be the first proximate principle. Other than this is not known of the composition except in a general way.

Physiological Properties—Yerba Santa has a special tendency to act on the mucous membrane of the air passages, and on this action hang the properties ascribed to it.

Therapeutical Application—Yerba Santa has been used with a good measure of success in the treatment of affections of throat and respiratory organs, including asthma, phthisis pulmonalis, pneumonia, laryngitis, bronchitis, broncorrhœa, bronchial aphonia, nasal catarrh, pertussis, hay fever, etc.

Yerba santa also acts freely on the renal and urinary organs, becoming of some value in gonorrhœa, and Bright's disease. Its use in hemorrhoids has been attended by fair success. Bryce states that it effected a cure of colic in his practice. In a similar case, which came to my notice not long since, I saw no indications for the use of the remedy, and, indeed, think it is hard to give a reason for putting it to such a use.

Of its use in asthma, I can say that I prefer yerba santa to some other remedies in the materia medica, but still regard it as inferior to several others. better known, and better applied.

Asclepias Syriaca.

Synonyms—Silkweed, milkweed, asclepias.

Habitat—Sandy fields, northern United States.

Medicinal Portion—The root.

Preparations—An infusion and a decoction.

Botanical Details—Nat. ord., Asclepiadaceæ. Stem 3-4 inches high, stout and branched. Leaves 6-8 inches long, acute. Umbels 2-4, axillary. Flowers, a pale purple. Pod prickly, containing numerous seeds, feathered.

Chemical Composition—The abundant juice contains water, wax, gum, caoutchouc, sugar, and salts.

Physiological Properties—*Asclepias* is possessed of anodyne properties, and is expectorant, laxative, and has sufficient hepatic action to merit consideration as an alterative. It is also diuretic.

Therapeutical Applications—In scrofula this medicine has been tested, and found of considerable value. Its expectorant powers render it beneficial in asthma, and bronchial disorders. It relieves dyspepsia, and is given with advantage. In renal dropsies, scarlatina, and rheumatism it is indicated, and used advantageously.

ANEURISM.

- | | |
|------------------|----------------------------------|
| 1. Electrolysis. | 4. <i>Veratrum viride</i> . |
| 2. Denutrition. | 5. Iodide of potassium. |
| 3. Ergot. | 6. <i>Bromide of potassium</i> . |

AGALACTIA.

- | | |
|---------------------------|------------------------|
| 1. <i>Ol. Ricinus</i> . | 3. <i>Pulsatilla</i> . |
| 2. <i>Urtica dioica</i> . | |

ARTHRITIS.

- | | |
|--------------|-------------------|
| 1. Blisters. | 3. Iron. |
| 2. Arsenic. | 4. Lithium salts. |

BOILS AND CARBUNCLES.

- | | |
|----------------|--|
| 1. Cataplasms. | 4. Arsenic. |
| 2. Sulphides. | 5. Arnica. |
| 3. Belladonna. | 6. Tincture of iodine. (<i>Topically</i> .) |

BRONCHIAL DISEASES.

- | | |
|---|--|
| 1. Carbonate of ammonia. | 21. Ipecacuanha. |
| 2. Scilla. | 22. Benzoin. |
| 3. Quinia. | 23. Carbolic acid. |
| 4. Opium. (?) | 24. Turpentine. |
| 5. Phosphates. (<i>Cephalanthus</i> .) | 25. <i>Eucalyptus</i> . |
| 6. Nitric acid. | 26. Acetate of lead. |
| 7. Iron. | 27. Balsam Peru. |
| 8. Arsenic. | 28. Sinapisms. |
| 9. Cod-liver oil. | 29. <i>Jaborandi</i> . |
| 10. Chloride of ammonium. | 30. Cantharides plaster. |
| 11. Iodides. | 31. <i>Cephalanthus</i> . (Vide intermittent fever.) |
| 12. Tartar emetic. | 32. <i>Caltha</i> . (See Note.) |
| 13. Balsam Tolu. <i>Jaborandi</i> , <i>Eugenia Cheken</i> . | 33. <i>Ranunculus acris</i> . (See Note.) |
| 14. Sanguinaria. <i>Euphorbia corollata</i> . | 34. <i>Lippia Mexicana</i> . (See Note.) |
| 15. Digitalis. | 35. <i>Petroleum</i> . (See Note.) |
| 16. Asafoetida. <i>Horse-radish</i> . | 36. <i>Antenaria margaritacea</i> . (See Note.) |
| 17. Cimicifuga. | 37. <i>Arum triphyllum</i> . (See Note.) |
| 18. Camphor. | 38. <i>Grindelia robusta</i> , <i>yerba santa</i> . |
| 19. Lobelia. | 39. <i>Agrimonia eupatoria</i> . |
| 20. Aconite. | 40. <i>Enanthe Phellandrium</i> . (See Note.) |

DESCRIPTIVE NOTES.

Caltha.

Synonyms—*C. palustris*, cowslips, marsh marigold.

Habitat—Swamps and meadows of Northern States.

Derivation of Name—Greek *kalathos*, “a goblet,” from shape of calyx.

Medicinal Portion—The entire plant.

Preparations—Not officinal. A syrup is prepared.

Botanical Details—Natural order, Ranunculaceæ. Stem round, hollow, and erect; leaves crenate and cordiform, flowers corymbose, bright yellow; fruit a many-seeded pod.

Physiological Action—The taste is acrid. Its constituents actively diffuse into the blood. It increases the bronchial

secretion by systemic irritation, and thus becomes an expectorant. It is also feebly diuretic.

Therapeutical Applications—The syrup which may be prepared from caltha is made much as are the officinal syrups. It forms a valuable cough remedy. In bronchitis it has a high worth, and especially is its value shown when it is combined with other expectorants. I consider it a very agreeable remedy for the use of children suffering from bronchitis.

Ranunculus Acris.

Synonyms—Buttercup, *R. pratensis*, tall crowfoot.

Habitat—The pastures and meadows of North America. Probably imported from Europe.

Medicinal Portion—The entire plant.

Botanical Details—Natural order, Ranunculaceæ. Sex. Syst., Polyandria polygynia. A hairy perennial; stem erect, leaves tri-divided, sessile, and finely lanceolate; flowers yellow, five petals, carpels in globose head.

Family Relations—*R. bulbosus*, an officinal plant, is related, but is not as valuable.

Chemical Composition—Analysis shows a volatile acrid oil, a resin, anemonin, and anemonic acid.

Physiological Action—In the mouth and throat the plant when chewed excites a violent irritation. A sense of heat is produced in the stomach, and fatal inflammation may be caused. It is narcotic, emetic, and powerfully epispastic. It is purely a topical remedy.

Therapeutical Applications—Although harsher and more dangerous, the leaves of *R. acris* become substitutive of cantharides as an epispastic when that drug is not at hand. It may be used with caution to blister in cerebral, chest, bronchial, and spinal diseases. The plant is bruised, and then applied.

Lippia Mexicana.

(See observations under head of *Cascara Amarga*.)

Habitat—Southern parts of Mexico. In rich moist places.

Botanical Details—Natural order, Verbenaceæ. Sub-variety of *lippia dulcis*. An evergreen, creeping shrub. Its half-dozen woody stems, arise, and trail off from its long serpentine root. The leaves are acute, rough, and serrate, and surround the stem. The flowers are globose, and of a delicate pink and white. They appear from November to March.

Medicinal Portion—The leaves and flowers.

Chemical Details—Jungk has analyzed the drug, and found a volatile oil occurring in one-half per cent. proportion, a crystalline substance, a precipitate, resin, sugar, and tannin.

Physiological Properties—*Lippia Mexicana* combines demulcent with narcotic properties, and does not nauseate.

Therapeutic Applications—I have not had experience enough with this drug to warrant a word of substantiation of claims made for it. Dr. Saxton recommends its use in bronchitis, and there are no reasons why it should not be useful. In nasal catarrh, and in pertussis it is fated to enjoy a high reputation. It may do its best work in a carefully-made combination.

Petroleum.

Synonyms—*Petrae oleum*, rock oil, earth oil.

Natural History—A bituminous substance, flowing spontaneously from the earth in various parts of the world.

Characters—Petroleum has a fetid odor; bitter taste; semi-liquid; tenacious; of a reddish-brown color; yielding liquid products. Sp. gr. 0.815–0.825.

Chemical Composition—Petroleum contains a large number of distinct substances of the carbo-hydrogen series, not necessary to name here.

Physiological Properties and Therapeutical Applications—From the very earliest period of history, petroleum has been known commercially and medicinally. Herodotus mentions it. Little attention was paid to it until a comparatively recent year, when with its discovery in New York and Pennsylvania, it was collected, and sold under the name of "Seneca oil," as a medicine "warranted to cure" all manner of disease. Latterly it

has come into more common use, and is now employed to some extent.

It is accounted an expectorant, antiseptic, disinfectant, diaphoretic, stimulant, antispasmodic and tonic. In over-doses it may be poisonous. Medium dose, 30 drops.

In Germany it was formerly a tæniafuge. Externally, it is employed for sprains, paralysis, cutaneous diseases, rheumatism, psora, and prurigo.

Formerly it was held that petroleum vapors were prophylactic of intermittents, but this is one of the exploded fallacies of the age, and is pronounced unfounded.

Moubré gives his experience with petroleum in treatment of bronchitis, stating that diminution of the secretion and coughing was observed. In this country the semi-solid petroleum has been used for the same disease, and also for asthma, catarrh, and phthisis. In regard to its application in the last-named disease, a recent writer has stated that it ranks next to cod-liver oil(!) He says it is an alterative, nutritive, and promoter of digestion. Cough is diminished, expectoration becomes abundant, tonic action ensues, pain disappears, etc.(!)

Antenaria Margaritacea.

Synonyms—Life-everlasting, gnaphalium margaritacea, cud-weed.

Habitat—Indigenous to American fields and woods.

Medicinal Portion—The leaves.

Physiological Properties—Mildly astringent, and expectorant.

Therapeutical Applications—Much has been said in commendation of the astringent powers of this plant as a remedy for bronchial and laryngeal disorders, but I consider that it is altogether valueless. In giving it a place here my purpose is to testify to its worthlessness. It is, if not absolutely inert, at least prone to disappoint, not occasionally, but as a rule. It would be well if many another useless remedy could be so stamped, but they come to us on all sides and none condemn even though disappointment and disgust are the common outcomes.

Arum Triphyllum.

Synonyms—Indian turnip, arisæma, wake-robin, dragon root.

Habitat—Moist places throughout the United States.

Medicinal Portion—The root (cormus.)

Preparations—The grated root; dose, grs. x.

Botanical Details—Natural order, Araceæ. Root perennial, roundish, flattened, fleshy, brown without, white externally. Spadix terminal, the summit clavate, naked and smooth. Leaves one or two in number, ternate; leaflets three to six inches long, smooth, purplish-green. Berries numerous, in an oblong, orange-colored cluster. Floral season May. Fruitage, August to September.

Chemical Composition—The analysis which I have conducted would serve to demonstrate the presence of an acrid principle, which may be named arumin, amylaceous matter, lignin, earthy salts, albumen, traces of sugar, gum, and water.

Physiological Action—The fresh root has a peculiar odor. The taste is violently acrid, the active principle of the root permeating the mucous membrane causes an insupportable burning sensation which is persistent for some time. The dried root does not retain all of this acrimony. I have to name this drug an excellent expectorant. It is also stimulant and a local irritant.

Therapeutical Applications—John Burroughs has pleasantly introduced wake-robin to his admiring readers, and out of its poetry into its prose as a medicine, the plant may be exalted. In bronchial and laryngeal disorders,—asthma, bronchitis, laryngitis, catarrh, pertussis,—Indian turnip root is advantageously given, and has its greater value where the system is in a cachectic state. I administer the powder in honey or syrup. For aphthæ it is said to be useful. An ointment has been used in tinea capitis. The grated root boiled in milk allays consumptive and irritant coughs. Attention has been called to it as a remedy for rheumatism.

Ænanthe Phellandrium.

Synonyms—Water-fennel, *P. aquaticum*, etc.

Habitat—Europe; ditches, and wet lands.

Position—Unofficial.

Preparations—Powder; dose, grs. v. Tincture; dose, 3 ss-j. Fluid extract; dose, 4-12 gtt. Solid extract; dose, grs. 3-5.

Medicinal Portion—Seeds.

Botanical Details—Order, Umbelliferæ. Sex. Syst., Pentandria digynia. Biennial. The seeds are a line in length; yellowish color; peculiar and disagreeable odor and taste.

Chemical Composition—The essential product is an oil.

Physiological Properties—Aperient, diuretic, sedative, expectorant, emmenagogue, stimulant, narcotic.

Therapeutical Applications—The most successful uses to which water-fennel has been put is in the treatment of bronchitis, phthisis, asthma, and dyspepsia. It is useful in rheumatism, scrofula, icterus, and portal congestion. With hopes in its utility the drug was employed for intermittent fever, but it has shown itself unworthy the name of antiperiodic.

BILIARY CALCULI.

- | | |
|--|------------------------------|
| 1. Turpentine and ether. | 6. Opium. |
| 2. Phosphate of soda. | 7. <i>Hydrangea</i> . |
| 3. Nitro-muriatic acid (topically, diluted.) | |
| 4. Alkalies. | 8. Atropia (hypodermically.) |
| 5. Chloroform. | 9. <i>Epigæa repens</i> . |

BILIOUSNESS.

- | | |
|-------------------|------------------------|
| 1. Podophyllum. | 6. Alkalies. |
| 2. Mercury. | 7. Manganese. |
| 3. Aloes. | 8. Hydrastis. |
| 4. Rheum. | 9. Iodide of ammonium. |
| 5. Mineral acids. | 10. <i>Boldo</i> . |

BUNIONS.

- | | |
|-----------------------|-----------------------------|
| 1. Carbolic acid. | 4. Mechanical applications. |
| 2. Plumbic salts. | 5. Rossolis. |
| 3. Nitrate of silver. | |

BRONCHOCELE.

- | | |
|--------------|--------------------------|
| 1. Excision. | 3. Electrolysis. |
| 2. Iodine. | 4. Carbonate of potassa. |

BLADDER, DISEASES OF.

- | | |
|---|--|
| 1. <i>Manzanita</i> leaves. (See Note.) | 10. Cantharis (catarrh.) |
| 2. <i>Eucalyptus</i> (catarrh.) | 11. <i>Triticum repens</i> . (See Note.) |
| 3. Buchu “ | 12. Chimaphila (cystitis.) |
| 4. Uva ursi “ | 13. Dulcamara. |
| 5. Pareira “ | 14. <i>Damiana</i> . |
| 6. Belladonna “ | 15. <i>Epigæa</i> . |
| 7. Juniper “ | 16. <i>Purslane</i> . |
| 8. Cubebs “ | 17. <i>Alisma plantago</i> . |
| 9. Turpentine “ | 18. <i>Rhus glabrum</i> . |

DESCRIPTIVE NOTES.

Manzanita Leaves.

Synonyms—*Arctostaphylos glauco*.

Habitat—California.

Physiological Properties—Manzanita is an astringent, sialagogue, tonic, and urino-genital.

Family Relations—*Uva ursi*.

Therapeutical Applications—In diseases of the bladder and urinary organs, manzanita has a remedial effect. It has thus been put to use in cystitis, catarrh of the bladder, gleet, incontinence of urine, leucorrhœa, etc. In diabetes it is distinctly of value, and for menorrhagia it is a remedy.

Triticum Repens.

Synonyms—Couch, dog, or guitch grass.

Habitat—A common pest in cultivated grounds.

Botanical Details—Family, gramineæ. Root white, jointed and creeping. Leaves from 4 to 12 inches long, lance-linear, scabrous, and unsheathed. Spike 3-5 inches high; florets alternate.

Medicinal Portion—The root.

Active Principle—A peculiar substance, tritacin.

Therapeutical Applications—In inflammatory diseases of the bladder—cystitis—the infusion of *triticum repens* is now somewhat extensively used, and is a successful remedy. I listened to its advocacy from the tongue of an eminent surgeon not long since, and can but believe it possessed of excellent virtues, though not substitutive of *uva ursi*. In dropsical disorders, *triticum repens* is said to be a remedy.

BURNS.

- | | |
|----------------------------|--------------------------------|
| 1. Bicarbonate of soda. | 6. Carbonate of lead. |
| 2. <i>Plantago major</i> . | 7. Olive oil. |
| 3. <i>Urtica dioica</i> . | 8. Turpentine. |
| 4. Salicylic acid. | 9. Cosmoline. |
| 5. Boracic acid. | 10. <i>Grindelia robusta</i> . |

CANCER.

- | | |
|---|-----------------------------------|
| 1. Excision and all surgical treatment. | 9. Pepsin injections. |
| 2. Electrolysis. | 10. Bismuth. |
| 3. Zinc, chloride and sulphide. | 11. Salicylic acid. |
| 4. Potassa fusa. | 12. Cundurango (?) |
| 5. Carbolic acid. | 13. Chloride of gold. |
| 6. Iodoform. | 14. <i>Viburnum prunifolium</i> . |
| 7. <i>Berberis aquifolium</i> . | 15. Hydrastis. |
| 8. Arsenic. | |

[REMARKS.—There are innumerable so-called remedies for cancer, but as yet there is really no reliable *remedy* for the disease known, and it is senseless to name them here.]

■

CHILBLAINS.

- | | |
|--------------------|----------------|
| 1. Oil of cajuput. | 2. Menthol (!) |
|--------------------|----------------|

■

CHOREA.

- | | |
|------------------------------------|---|
| 1. Arsenic. | 10. Strychnia (Alisma plantago.) |
| 2. Iron. | 11. Chloral, <i>Æsculus hippocastanum</i> . |
| 3. Veratrum viride. | 12. Morphia. |
| 4. Ipecacuanha. | 13. Cimicifuga. |
| 5. Gelsemium. | 14. Conium. |
| 6. Hydrotherapy. | 15. Physostigma. |
| 7. Cod liver oil. | 16. <i>Spigelia</i> . |
| 8. Ammoniate of copper. | 17. <i>Sumbul</i> . |
| 9. Zinc, valerianate and sulphate. | |

CARDIAC DISEASES.

- | | |
|------------------------------------|------------------------------|
| 1. Quinia. (Endocarditis). | 10. Digitalis. |
| 2. Salines, etc. " | 11. Ver. viride. |
| 3. Anodynes. " | 12. Belladonna. |
| 4. Blisters. " | 13. Diuretics. |
| 5. Alkalies. " | 14. Iodine. |
| 6. Ammonia. " | 15. Quiet. Temperance. Care. |
| 7. Depletion. (Pericarditis, etc.) | 16. Coca. |
| 8. Diet. Tonics. Stimulants. | 17. <i>Asparagus</i> . |
| 9. Nitro-glycerine. | |

CATALEPSY.

- | | |
|---------------|---------------------|
| 1. Gelsemium. | 2. Cannabis indica. |
|---------------|---------------------|

CEREBRAL DISEASES.

- | | |
|---|--|
| 1. Bromide of potash, and other bromides. | 6. Diet. Tonic. Anodynes. |
| 2. Ergot. | 7. Pediluvia. Ice. Sincipisms. Blisters. |
| 3. Iron. | 8. Iodine. |
| 4. Purgatives. | 9. <i>Ranunculus acris</i> . |
| 5. Electricity. | 10. <i>Ustilago maidis</i> . |

[REMARKS.—Vide Apoplexy. The above are selected from numerous remedies for cerebral inflammation, or functional disease.]

CEPHALALGIA.

- | | |
|----------------------------------|-------------------------------|
| 1. Opium. | 7. Gelsemium. |
| 2. Quinia. | 8. <i>California laurel</i> . |
| 3. Electricity. | 9. Belladonna. |
| 4. <i>Jamaica dogwood</i> . | 10. Nux vomica. Tea. Coffee. |
| 5. <i>Tonga</i> . | 11. Bromides. |
| 6. Diet. Rest. Removal of cause. | 12. Chloral. |
| Cold. | 13. <i>Paraguay tea</i> . |

CONSTIPATION.

- | | |
|---|--|
| 1. <i>Cascara Sagrada</i> . (See note). | 12. Mercury. |
| 2. <i>Fuglans</i> . (See note). | 13. <i>Euonymus Atropurpureus</i> . |
| 3. <i>Buckeye Bark</i> . (See note). | 14. <i>Hydrastis</i> . |
| 4. <i>Brassica</i> (Vide Syphilis). | 15. <i>Gentiana Quinquiflora</i> (Vide Inter-
term. Fever). |
| 5. Cathartics (of various kinds). | 16. <i>Actea Spicata</i> . (See note). |
| 6. Arsenic. | 17. <i>American Agaric</i> . (See note). |
| 7. <i>Physostigma</i> . | 18. <i>Indian Blackroot</i> . (See note). |
| 8. <i>Stillingia</i> . | 19. <i>Cassia Fistula</i> . (See note.) |
| 9. <i>Belladonna</i> . | 20. <i>Avena</i> . (See note.) |
| 10. Mustard Seed. | 21. <i>Euonymus</i> . |
| 11. Chloride of Ammonium. | |

DESCRIPTIVE NOTES.

Cascara Sagrada.

Synonyms—*Rhamnus Purshiana*.

Derivation of Common Name—*Cascara*—"bark;" *Sagrada*—"sacred." Literally "sacred bark."

Position—Unofficial.

Preparations—There are several preparations of cascara sagrada in the market. Out of these two may be singled as in every way "the best." The two are (1) a fluid extract, of which the dose is f3ss *t. d.* as a laxative, f3j *t. d.* as a cathartic. (2) *Cascara cordial* (an elixir), the dose same as fluid extract.

Nomenclature—Latterly it has come to be somewhat fashionable to speak of this drug as the *rhamnus purshiana* (its botanical name). I do not fancy the appellation. That which was at first cascara sagrada, is still, and ever should be so known. Equally as reprehensible is the practice of dwarfing the name, and saying "cascara" simply. In point of fact "cascara" means nothing, or rather, means too much. The word is Spanish for bark, and those who are familiar with the early history of cinchona will remember well that formerly it was known as "cascara," or "the bark." *Cascara Sagrada* is the one name for the drug of which we speak.

Synergists—Cascara Sagrada is a remedy that needs no synergist. It carries its own honor, and truly, "good wine needs no bush."

Habitat—The North American Pacific coast.

Historical—For more than five centuries cascara sagrada has been known by the Spanish-Americans as a medicine. In the thirteenth century one De Chrescentius speaks of it under the name of "anorous." Before his time it had been for years a favorite medicine of the Mexican Indians. Its branches were fastened over the doors of the houses. It was burned as a sacred offering before houses where persons had died. Its use at ceremonial occasions in the church was frequent. I have seen it stated, and that in positive terms, that the Spanish Fathers named this bark sacred because of their imbibition of heathen practices. This is not proven, and we who know the careful religious exclusiveness of the priests must deny such a thought. In looking into the matter, I think that I find that the name arose from the fact that on Palm Sunday it was a custom to employ the green branches of the cascara sagrada in substitution for palms, and the priests having then blessed these branches, the more superstitious natives, getting an inkling of the meaning of this performance, and reputing the bark as a remedial agent, gave the name "sacred bark."

Structure of the Bark—The bark consists of three layers, viz.; an outer, or red, corky layer, a middle or amylaceous-like layer, and an inner, or fibrous layer.

Chemical Composition—The constituents so far as determined, are a brown and a red resin, a neutral crystallizable body, tannin, oxalic and malic acids, a volatile and a fatty oil, wax, and starch. The chemistry of *R. frangula* is not allied in any sense to that of *R. purshiana*.

Medical Portion—Only the bark is used. The branches and leaves are useless.

Physiological Properties—The action of cascara sagrada is stimulant to the secretory glands of the entire alimentary canal as well as to the liver. It also increases peristalsis by a defined action on the muscular fibres of the intestines, producing tonicity as well contractility. That it has a tonic action on the liver is also certain.

Botanical Details—I do not think that I need apologize for our imperfect botanical knowledge of cascara sagrada, as I can find no reference to it save the most superficial. Special attention to proving the botany of the shrub should be presented, if possible, by those who are in a position to study it.

Therapeutical Application—Cascara sagrada is the only specific for constipation. I emphasize the words of this declaration. There is no other therapeutical agent that is a specific cure for the disorder; and more, there is no known remedy that is better entitled to the name of specific. Constipation always yields to cascara sagrada. It acts peculiarly upon the hepatic and intestinal secretions, as shown above. The muscular tissue of the intestine receives tonicity, until tone and muscular power are fully restored; and in addition the secretory glands are made more active. It will never have an equal as a remedy. I have before me reports of nearly three hundred cases of constipation treated with cascara sagrada, and all were successful. Indeed, I have yet to hear of a failure.

Atonic dyspepsia yields to cascara sagrada, and in the majority of cases is not only remedied but positively cured, the medicine toning the muscular coats of the stomach as well as it does those of the intestines, and also acting on the liver.

Jaundice and torpidity of the liver are readily cured by cascara sagrada, thus proving that it has a real cholagogue effect. Hemorrhoids and diarrhœa have been cured at its expense. But these inner "minor things are of no avail." Cascara sagrada is a remedy for constipation and for dyspepsia and it wins its laurels there. It needs not to do the drudgery of therapeutics; it has a higher place. Cascara sagrada has its eminent worth. It will preserve it.

Juglans.

Synonyms—Butternut, black walnut.

Species—*J. cinerea* and several others. *J. cinerea* is alone officinal and of value.

Habitat—Indigenous to America.

Botanical Details—Nat. ord. juglandacæ; Sex. syst. Monocia Polyandria. The average height of this American tree is

thirty feet. The young branches are smooth and grey. The trunk has a rugous, granite-colored bark. Leaves consist of seven or eight pairs of leaflets, with one terminal. They are long, acuminate, and serrate. Sterile flowers issue in catkins in May. The fertile flowers are two, six or seven, each in involucre, stigmas purple; surface glutinous. The fruit grows single or two to five together. They are green, becoming brown, ovate, invested with hair-like glands which exude a clammy, odorous substance. Husk, thin; nut, two inches long, furrowed, and irregular; kernel is of one piece, oily, sweet, and pleasant to the taste.

Medicinal Portion—The inner bark of the root.

Derivation of Name—Juglans, "Jove's glands." (!)

Chemical Composition—Juglans bark contains a peculiar bitter oil, juglandic acid and several earthy acids.

Preparations—The extract; dose 10–20 grs. A tincture, dose ʒj–ij.

Physiological Action—Juglans is a very mild but thorough purgative, acting without irritation. It is also a stimulant tonic to the skin.

Therapeutical Application—Constipation, when it is simple and uncomplicated is readily relieved by juglans. It is efficient in dysentery, and its mildness makes it of signal value in diseases attended with congestion of the abdominal viscera. In the treatment of hemorrhoids it has been used.

Alternated with iodide of arsenic it is valuable in chronic cutaneous disorders. In the exanthemata, and in scrofula, it is of material service. It is said that, "a well-earned reputation is a hard reputation to keep." So with juglans. Its honor seems to be wasting, but its name will endure.

Buckeye Bark.

Synonyms—Æsculus Glabra.

Habitat—The Western States.

The Preferable Preparation—A fluid extract; dose ʒiij–vi.

Botanical Details—A large, showy tree. Leaflets are fine, dentate, and resemble those of the chestnut. Flowers small,

pale yellow; petals, four, upright, stamens carved. Fruit is prickly.

Physiological Action—Buckeye bark irritates the intestinal canal. It has an influence on the cerebro-spinal nervous system. Its action is not unlike that of colocynth.

Therapeutical Applications—In composition buckeye bark becomes a remedy having a very prompt action. It is especially valuable in the constipation attending hemorrhoids; but it is not curative of hemorrhoids, as has been claimed. It relieves hepatic congestion admirably, and seems to promote the biliary secretion.

Actæa Spicata.

Synonyms—Herb Christopher, baneberry.

Habitat—European woods of mountainous regions.

Medicinal Portions—The root and berries.

Botanical Details—This is a perennial herb which attains a height of two or three feet. Order Ranunculaceæ.

Physiological Action—In odor is sweet and nauseant, and the taste bitter and acrid. In action baneberry is emetic and purgative.

Therapeutical Applications—As a remedy for obstinate constipation this drug is not unlike podophyllum in action, and has been employed to some extent. It is deserving of study and experimental use, and may come to be the equal of the drug with which it is compared.

American Agave.

Synonyms—American aloe, maney, A. *ramosa*.

Habitat—Indigenous to tropical America.

Medicinal Portion—Juice of root and leaves.

Botanical Details—Nat. Ord. Bromeliaceæ; Sex. syst. Hexandria Monogynia.

Chemical Composition—The juice contains a syrup-like liquor (sugar), starch, liquin, volatile oil, a gum-resin, and earthy salts.

Commerce—The agave juice fermented constitutes pulque, the favorite Mexican drink. The gum of the tree is not unlike impure gum arabic. The leaves are fabricated into thread, and the juice, reduced to the form of a solid extract, is used as a soap.

Therapeutical Applications—The juice is laxative, emmenagogue, and diuretic; but is not much used. As a pleasant remedy for constipation it is worthy of mention, but is more decidedly laxative than cathartic. As a remedy for scurvy it is recommended as the equal of lime-juice.

Indian Blackroot.

Synonyms—*Pterocaulan pycnostachyum*, blackroot.

Habitat—Indigenous to this country.

Position—Unofficial.

Preparations—Fluid extract; dose $\frac{1}{4}$ – $\frac{1}{2}$ f 3. Decoction.

Medicinal Portion—The root.

Botanical Place—Order, *compositæ*.

Synergists—Mercury is agreeably synergistic.

Therapeutical Applications—Indian blackroot one of the "Indian alteratives," and in this action it is as positive as the vegetable alteratives in general. It is also cathartic, and becomes of some value in the absence of other remedies of the class. There is nothing harsh in its action, but I have not been able to demonstrate residence of any extraordinary value over other cathartics.

Cassia Fistula.

Synonyms—Purging cassia.

Habitat—The tropics.

Medicinal Portion—The pulp of fruit.

Botanical Details—Nat. ord., *Fabacæ*. (?) Sex. syst., *Decandria Monogynia*. A tree, fifty feet high, having an ash-brown bark. Leaves in five pairs of short, ovate leaflets. Flowers golden, in axillary racemes. Fruit long, woody, and pendulous; brown pods, a foot long, containing several oval seeds.

Chemical Composition—I have been unable to obtain other analysis than that of Henry, which shows sugar, gum, tannin(?), coloring matter, water, and a gluten-like substance.

Therapeutical Applications—Cassia pulp is a pleasant laxative, and given in doses of an ounce becomes remedial of constipation. In large doses it purges with unpleasant effects. It is one of the ingredients in confectio senna, and is always useful as a laxative.

Avena.

Synonyms—Oats, avena sativa, bromos.

Habitat—Cultivated in all parts of the world. It grows wild in Sicily.

Medicinal Portion—The grain.

Botanical Details—Sex. syst., Triandria Digynia; Nat. Ord., Gramineæ. Root annual; culm, 2-4 feet high, smooth; leaves 6-15 in. long, lanceo-linear, scabrous; sheaths striated, smooth, and loose; ligule lacerate; spikelets two-flowered, pedunculate, pendulous, in a loose panicle. Lower floret mostly awned on back; upper floret awnless. Grain oblong, grooved on upper side, hairy at summit, invested by smooth, sub-cartilaginous paleæ. Floral season, July. Fruitage, August.

Chemical Composition—The analysis of Prof. Norton is most accurate. It is as follows: Starch, sugar, gum, oil, albumen, gluten, nitrogenous matter, alkaline matter, and fibrous substance.

Physiological Action—The oat has a peculiar and unpleasant smell, is slightly bitter, and somewhat insipid. It is easily digested, nutritious, and has a laxative tendency.

Therapeutical Applications—"Oats," said the sarcastic Dr. Johnson, "are the food of horses in England, and of men in Scotland." Now, in another than the century of the great lexicographer, oats have become medicinal. In arranging diet for the dyspeptic, oatmeal should be employed first in the course of treatment, last in the course, and after it. It cannot be valued too highly, and its use should be insisted upon. I regard it as an estimable adjuvant to cure. It is also of some worth in constipation.

Oatmeal makes a first-rate poultice for indolent ulcers. Oatmeal gruel is a good demulcent, and useful for enemata. As a vehicle for the administration of medicines of a nauseating character, it is admirable.

CUTANEOUS DISEASES.

- | | |
|--|---|
| 1. Arsenic (eczema.) | 24. Iron. |
| 2. Cantharides " | 25. Chromic acid. |
| 3. <i>Clematis erecta</i> " | 26. Carbolic acid (<i>scorbutus</i>). |
| 4. Sulphur " | 27. <i>Manganese ointment</i> . |
| 5. Bismuth " | 28. <i>Coptis</i> . |
| 6. Lead " | 29. Sulphide of potassium. |
| 7. Zinc salts " | 30. Turpentine. |
| 8. Tannic acid " | 31. <i>Rumex crispus</i> . |
| 9. Electricity " | 32. Sulphurous acid. |
| 10. Cod liver oil. | 33. <i>Urtica dioica</i> (<i>vide ascites</i>). |
| 11. <i>Petroleum</i> . | 34. <i>Folia carobæ</i> (<i>vide syphilis</i>). |
| 12. Quinia. | 35. <i>Gurjun balsam</i> (<i>vide gonorrhæa</i>). |
| 13. <i>Jaborandi</i> . | 36. <i>Cephalanthus</i> (<i>vide intermittent fever</i>). |
| 14. <i>Grindelia squarrosa</i> . | 37. <i>Ulmus</i> . (<i>See note</i> .) |
| 15. Belladonna (<i>Erythema</i>). | 38. <i>Life-everlasting</i> . (<i>See note</i> .) |
| 16. Mercurial ointment (<i>Herpes</i>). | 39. <i>Burdock</i> . (<i>See note</i> .) |
| 17. Mineral acids. | 40. <i>Dulcamara</i> . (<i>See note</i> .) |
| 18. Glycerite of tannin (<i>Impetigo</i>). | 41. <i>Petroleum products</i> . (<i>See note</i> .) |
| 19. Nitro-muriatic acid (<i>Lepra</i>). | 42. <i>Goa powder</i> . |
| 20. Phosphorus. | 43. <i>Enothera biennis</i> . (<i>See note</i> .) |
| 21. <i>Sambucus</i> . | 44. <i>Pulsatilla</i> . |
| 22. <i>Berberis aquifolium</i> . | |
| 23. Iodine. | |

DESCRIPTIVE NOTES.

Ulmus.

Species—*U. fulva*, *U. campestris*, *U. Montana*, *U. Americana*.

I. *Ulmus Fulva*—Slippery elm. It is the *U. rubra* of Michigan. Tree fifty feet high; bark brown; leaves obovate, pubescent, averaging four inches long by two wide; flowers in lateral

clusters, with purple anthers, calyx downy, stamens five, no corolla.

Habitat—The northern United States, in dry and elevated situations.

Official Appearance—The bark is of a yellow-white color and fibrous. If ground it is of a fawn-grey powder.

II. *Ulmus Campestris*—English, or broad-leaved elm. This species is characterized by a larger and higher growth than *U. fulva*, being frequently seventy feet high and five feet in diameter. Bark brown, rough, and furrowed; leaves serrate, and varying in shape; flowers sessile, clustered, and pentandrous.

Habitat—Europe. Cultivated in America.

Official Appearance—Thin, tough, brownish-red strips of bark.

III. *Ulmus Montana*—Scotch elm.

IV. *Ulmus Americana*—American or white elm. This is the most magnificent of true American trees. The trunk branches at a considerable height at a fine angle, the branches being gracefully pendant. Leaves broad, heart-shaped, and doubly serrate, two to five inches long, and of a rich green. Flowers in lateral clusters, appearing in April, each flower on a green thread, and consisting of a brown calyx, having eight brown stamens, with a long ovary on two styles.

Habitat—From Nova Scotia to Georgia.

General Properties—*Ulmus cortex* of either of these four leading species is demulcent and mucilaginous.

Preparations—*U. fulva* and *U. campestris* are officinal. From the first is prepared *mucilago ulmi*; and from the latter *decoctum ulmi*.

Chemical Composition—Elm bark contains in addition to mucilage, starch, bitter extractive, etc., a dark-brown, tasteless substance called ulmin or ulmic acid.

Physiological Action—This bark is feebly tonic and astringent, and is said to be diuretic. Its intimate action is that of the mucilagines.

Therapeutical Applications—Elm bark is valuable for cutaneous diseases, and is given in decoction. Slippery-elm bark is of some reputation as a tœniacuge. When a demulcent is needed in diarrhœa there is no agent of the kind more worthy than this

bark. It is also said to be used for the same reasons in bronchitis and laryngeal affections. When finally ground it becomes a nutrient food for infants and invalids, and is commonly used for poultices.

Life-Everlasting.

Synonyms—Antenaria, Margaritacea, Cud-weed.

Habitat—The United States, near old buildings, by roadsides and in loamy soil near woods.

Medicinal Portion—The leaves.

Botanical Details—This is an American herbaceous plant, familiar to all who have tasted country life. Its clumps of rich green, its fleshy leaves, its white and almost odorless flowers, are known to every one.

Physiological Action—It is held that the leaves of the life-everlasting are astringent and expectorant. I question both properties. If either exist their worth is feeble. Distinct from such claims is another more tenable, which names the plant antiscorbutic. That it possesses this property is not altogether incontestable, but it is probable.

Therapeutical Applications—I have no hesitation in naming an infusion of life-everlasting as a remedy for purpura nautica, to be used in connection with proper hygienic measures. It is also claimed as a curative for lepra.

Burdock.

Synonyms—Lappa, Arctium lappa, I'laphis.

Habitat—Native of Europe. Waste places in United States.

Medical Portion—Root, seed and leaves.

Preparations—Emulsion, fluid extract, tincture, infusion.

Botanical Details—Nat. Ord., Compositæ; Sex. Syst., Syngenesia æqualis. Biennial, flowering July–September. Root spindle-shaped, brown without, white within. Stem two to six feet high, branching, pubescent. Leaves large, cordate, dentate, green above, white beneath. Flowers pannicular, globose, purple. Seeds quadrangular.

Chemical Composition—No perfect analysis published.

Physiological Properties—The taste of the root is sweet, mucilaginous, and slightly bitter. It is regarded as aperient, diaphoretic, diuretic, and anti-scorbutic.

Therapeutical Applications—The principal use made of burdock is in the treatment of cutaneous diseases, of which it is directly curative. Especially is it of value in ague, and must be long continued. It has also been used for rheumatism, nephritis, scrofula, and constipation, and always with more or less success.

Dulcamara.

Synonyms—Bittersweet, solanum dulcamara, woody, nightshade, black nightshade.

Habitat—Native of Europe. About buildings.

Medical Portion—The leaves, root and stalk.

Botanical Details—Order, Solanaceæ; Sex. Syst., Pentandria, Monogynia. Perennial. Stem four to eight feet high, flexuose. Leaves two to four inches long, cordate. Flowers pale violet, in umbel-like racemes. Berries globose, black.

Official Appearance—The dried twigs are of the thickness of a goose-quill, grey, pithy.

Active Principle—Is alkaline, and called solanin,

Physiological Action—Emetic, narcotic, excitant, diuretic, sudorific, antiaphrodisiac.

Therapeutical Applications—As a remedy for skin diseases, especially eczema, dulcamara is well calculated. It cures by sedative action on the capillaries. An ointment made from dulcamara assists action of the remedy. Other uses are for scrofula, ascites, catarrh, and rheumatism.

Preparations—Decoction, dose, $f\frac{3}{4}$ i; extract, dose, grs. v-x; fluid extract, dose, $\frac{3}{4}$ ss-j; infusion, dose, $f\frac{3}{4}$ ss-j.

Petroleum Products.

1. Vaseline. 2. Cosmoline. 3. Petrolene, etc.

Remarks—Cosmoline, vaseline, and other allied preparations, are of a composition more or less secret, but having paraffin as

a base. Cosmoline is a yellow, unctuous substance, liquid at 96 degrees. It is used in surgical therapeutics as a protective dressing for ulcers, burns, scalds, and simple wounds. As an unguent it is used for skin diseases. As employed to form cerates it is excellent. Vaseline resembles cosmoline, is soluble in alcohol and ether, is a medium for ointments, and is tasteless and inodorous. There are several patented preparations of vaseline. Its therapy is not unlike that of cosmoline, and the same may be said of petroline. I can recommend it as a topical application for skin diseases, burns, scalds, flesh wounds, scrofulous ulcers and swellings, granular lids, piles, otorrhœa, ophthalmia, etc. The remedy is becoming popular universally, and it is in my opinion the best simple unguent.

Enothera Biennis.

Synonyms—Evening primrose, scabish, tree primrose, onagra.

Habitat—United States.

Position—Unofficial.

Preparations—Fluid extract; dose, 3 j.

Medicinal Portion—The bark.

Botanical Details—Nat. Ord., Onograceæ; Sex. Syst., Octandria Monogynia. Grows in all of our fields. Two to five feet high; stem rough; alternate, ovate-lanceolate leaves; fine, yellow flowers. Flowering season, July–August.

Physiological Properties—Mucilaginous and acid; astringent and tonic.

Therapeutical Applications—Long ago “scabish” was a domestic remedy for cutaneous disorders, and many still believe in its virtues. Eclectic practitioners recommend it for diarrhœal disorders, especially cholera infantum. Dr. N. S. Davis uses it for dyspepsia, and it is certainly useful in morbidly sensitive gastric conditions. In asthma it is mildly efficient, and, acting on the pneumogastric nerve, thus becomes valuable in disease of that nerve or its branches. Its adaptation to the treatment of pertussis is proven by numerous experiments.

COLIC.

- | | |
|---|---------------------------|
| 1. Opium. | 12. Camphor (externally). |
| 2. Ether and chloroform. | 13. Brandy. |
| 3. Tobacco. | 14. Enemata. |
| 4. Assafoetida. | 15. Sinapisms. |
| 5. Sulphuric acid (lead colic). | 16. Spirits of ammonia. |
| 6. Alum “ | 17. Pediluvia. |
| 7. Cinchona. | 18. Massage. |
| 8. Strychnia. | 19. Aromatics. |
| 9. Carminatives. | 20. Alumen. |
| 10. Cathartics. | 21. <i>Coca</i> . |
| 11. Hot water (externally). | 22. <i>Achillea</i> . |

CROUP.

(REMARKS—Out of numerous remedies I select the following as the best.)

- | | |
|------------------------|----------------------|
| 1. Turpeth mineral. | 10. Lobelia. |
| 2. Sulphate of copper. | 11. Nitrite of amyl. |
| 3. Sulphate of zinc. | 12. Aconite. |
| 4. Quinia. | 13. Bromides. |
| 5. Hydrotherapy. | 14. Cataplasms. |
| 6. Tartar emetic. | 15. Steam. |
| 7. Alum. | 16. Oxygen. |
| 8. Ipecacuanha. | 17. Argenti nitras. |
| 9. Lactic acid. | 18. Tracheotomy. |

CATARRH, NASAL.

(Vide remedies for bronchitis and laryngitis.)

CHICKEN-POX.

1. Palliative and hygienic measures.

DIPHThERIA.

- | | |
|--|--------------------------|
| 1. Chloride of iron, chloride of potash,
and quinine. | 8. Aconite. |
| 2. Mineral and lactic acids. | 9. <i>Eucalyptus</i> . |
| 3. Permanganate of potassa. | 10. Alcohol; diet; milk. |
| 4. Chlorine. | 11. Sulphur. |
| 5. Carbolic acid. | 12. Vapor. |
| 6. Salicylic acid. | 13. Tracheotomy. |
| 7. Belladonna. | 14. <i>Mango</i> . |

DIABETES.

- | | |
|--|---------------------------|
| 1. Alkalies. | 16. Carbolic acid. |
| 2. Arsenic. | 17. Citrate of sodium. |
| 3. Diet. | 18. Alum. |
| 4. Milk. | 19. Iodine. |
| 5. Opium. | 20. Nitric acid. |
| 6. Phosphoric acid. | 21. Turpentine. |
| 7. <i>Aletris</i> . | 22. Tannic acid. |
| 8. <i>Rhus aromatica</i> . (See note.) | 23. Gallic acid. |
| 9. Belladonna. | 24. Lime. |
| 10. Bromide of potassium. | 25. Creasote. |
| 11. Lactic acid. | 26. Nitrate of potassium. |
| 12. Strychnia. | 27. Valerian. |
| 13. Pepsin. | 28. Mucilaginous drinks. |
| 14. Iron. | 29. <i>Jaborandi</i> . |
| 15. Ergot. | |

DESCRIPTIVE NOTES.

Rhus Aromatica.

Synonyms—Fragrant sumach, skunk root.

Botanical Details—Nat. ord., Anacardiaceæ. Family, *Rhus*. Height, six feet. Flowers, a dingy yellow. Fruit, red, acid, and in clusters.

Habitat—Cultivated in Europe. Indigenous in some of the Western States. I learn that it is found in Williamstown, Mass. It is notably isolated in habitat. It is said to prefer a high, rocky soil.

Medicinal Portion—The bark of the root.

Preparations—A tincture and a fluid extract are prepared (unofficially).

Chemical Composition—An analysis is wanting.

Physiological Action—It is astringent, and manifests a tendency to a special action on the urinary organs.

Therapeutical Applications—Testimony as to the value of rhus aromatica in diabetes has recently been published. It is also advised in albuminuria, fifteen or twenty drops of the fluid extract every two hours. Its astringency makes it serviceable in treatment of diarrhœa, passive hemorrhages, and dysuria. McClanahan states that it is curative of dysuria and of enuresis, and I believe it to be most excellent in the first-named of these two disorders.

DIARRHŒA.

CHOLERA—CHOLERA MORBUS—DYSENTERY—CHOLERA INFANTUM.

- | | |
|----------------------|---------------------------------|
| 1. Opium. | 17. Alkalies. |
| 2. Quinia. | 18. Columba. |
| 3. Arsenic. | 19. <i>Quebracho</i> . |
| 4. Bismuth. | 20. Iron, |
| 5. Camphor. | 21. Pepsin. |
| 6. Wine. | 22. Bromide of potassium. |
| 7. Salines. | 23. Calomel. (?) |
| 8. Ipecacuanha. | 24. Chloral. |
| 9. Nux vomica. | 25. Nitrate of silver. |
| 10. Ergot. | 26. Rhubarb. |
| 11. Zinc salts. | 27. <i>Rumex Crispus</i> . |
| 12. Tannic acid. | 28. Sulphur. |
| 13. Alum. | 29. Starch enema. |
| 14. Acetate of lead. | 30. <i>Coca</i> . |
| 15. Copper salts. | 31. Magnesia. |
| 16. Mineral acids. | 32. Diet and hygienic measures. |

- | | |
|--|---|
| 33. Mucilago acaciæ. | 49. <i>Hamamelis Virginica</i> . (See note.) |
| 34. Bromide of sodium. | 50. <i>Ailanthus Glandulosa</i> . (See note.) |
| 35. Salicin. | 51. <i>Ailanthus excelsa</i> . (See note.) |
| 36. Alcohol. | 52. <i>Syringa vulgaris</i> . (See note.) |
| 37. Carbolic acid. | 53. <i>Mullein</i> . (See note.) |
| 38. Simple bitters. | 54. <i>Mango</i> . (See note.) |
| 39. <i>Sarracenia flava</i> . (Vide gonorrhœa.) | 55. <i>Oryza sativa</i> . (See note.) |
| 40. <i>Jamaica dogwood</i> . (Vide neuralgia.) | 56. <i>Sumbul</i> . (See note.) |
| 41. <i>California laurel</i> . (Vide neuralgia.) | 57. <i>Avens</i> . (See note.) |
| 42. <i>Dila</i> . (Vide intermittent fever.) | 58. <i>Abis Canadensis</i> . (See note.) |
| 43. Manganese. | 59. <i>Belæ fructus</i> . (See note.) |
| 44. <i>Creta mistura</i> . | 60. <i>Avena</i> . |
| 45. <i>Areca nuts</i> . (See note.) | 61. <i>Juglans</i> . |
| 46. <i>Cercis canadensis</i> . (See note.) | 62. <i>Saracenia flava</i> . |
| 47. <i>Spiræa</i> . (See note.) | 63. <i>Orobanchè Virginiana</i> . |
| 48. <i>Rubus</i> . (See note.) | 64. <i>Coto bark</i> . (See note.) |

DESCRIPTIVE NOTES.

Areca Nuts.

Synonyms—Betel nut, areca catechu, A. jaufel, canuga (Fr.) arec.

Botanical Details—The areca tree, of which the nuts are the fruit, is a palm. Order, Palmas. Sex syst., Monoecia Monadelphica. Its generic characters are those of the palm family, of which it is a not unimportant Indian member. The fruit is of the size and shape of a pigeon's egg, lemon color, and fleshy. The nut is embedded in the center of the fruit, and enclosed in a tough leathery shell. It is the kernel which is the betel-nut of commerce. This is of a roundish shape, the size of a hazel-nut, of a variegated grey and brown color, the substance brownish-red, with white veins.

Family Relations—The palms and dates.

Descriptive Botany—The areca tree is not the most majestic of palms, but it is beautiful, spreading and erect. It rises to the height of forty feet, its stem supported by other trees. The trunk presents a remarkably twisted and gnarled appearance, and the branches are whorled. The leaves are long,

lanceolate, and pendulous, broadening upon the short, fleshy stalk. The massed foliage is of a pale, green color, sheeny, and full.

Medicinal Portion—The nut.

Official Appearance—The areca nut is imported mixed with its husks, and other impurities.

Derivation of Name—The names areca and betel are both Indian.

Habitat—East India.

Chemical Composition—The areca nut has been analyzed, and found to contain tannin, saline matter, a gum, a fixed oil, gallic acid, and lignin.

Preparations—It is unofficinal. A fluid extract is prepared, and a tincture has been arranged.

Antagonists and Incompatibles—The mineral acids, most vegetable alkaloids, the metallic salts, and gelatine.

Synergists—Tonics, bitters, all remedies containing tannic acid, and those increasing waste.

Physiological Actions—The abundance of tannin which areca contains gives to it the action peculiar to that principle. It diminishes the secretion of the mucous membrane of the alimentary tract by astringency, and hence is constipating, and impairs digestion. It has a paralyzant action on the peristaltic movement of the intestines. The drug is slow in systemic action, as it enters the blood with difficulty. It is sparingly eliminated by the kidneys and intestines, and is changed by the process.

Therapeutical Applications—The areca nut has been styled the "Tobacco of the East." Its use as a masticatory is as our abuse of tobacco. It, mixed with the leaves of piper betel and lime, forms a not disagreeable mass for chewing. The natives use it, holding that it is a prophylactic of the dysenteries so common in the Asian tropics. It is easy to see that the astringency of the drug would effectually prevent intestinal relaxation. The East Indians have long employed the freshly-grated nut for taenia, giving a teaspoonful after twelve hours of fasting. Of late it has been successfully tried in England and this country for the same purpose. In combination with male fern it never fails. A reliable formula is: $\mathcal{R}$. Oleores.

filicis, ʒxx, areca nut, grated, ʒiv. To be taken at one dose, after a fast.

In hematuria the fluid extract may be used with advantage. In flatulence it is said to be useful. The Chinese claim areca as a prophylactic of asthma, and, with equal pleasure, assert that it "comforts the head." It is said, on the authority of Winterbotham, that it has a true hepatic action.

Areca is extensively used as a tooth powder, the nut being prepared by first reducing it by heat to the state of charcoal. That it has an astringent action on the gums is highly probable, and its charcoal, being remarkably hard, makes it a good dental preservative.

Cercis Canadensis.

Synonyms—Judas tree, red bud.

Habitat—Northern United States, sparingly.

Botanical Details—A tree of the bean family, *Loteæ*, allied to the locusts. The flowers are of a rose-red color, and appears before the leaves. The latter are broad, heart-shaped, and pointed, very smooth above and beneath.

Preparations—An (unofficial) fluid extract is prepared.

Chemical Composition—I have been unable to learn that an analysis has been made, and have not been able to make one. I think I am not at error in considering it a vegetable astringent.

Physiological Action—Not yet determined.

Synergists—Lactuacarium increases the action of cercis canadensis. Opium is also synergistic.

Therapeutical Applications—This remedy was introduced to the profession in 1879, by Dr. W. R. Smith, as a specific for camp diarrhœa and chronic dysentery. It promises to bear out this reputation. In atony of the mucous membranes of the vagina and urethra, in gleet and leucorrhœa, it is a valuable injection.

Spirea.

Synonyms—*S. tomentosa*, hardhack, rosy-bush, red meadow-sweet, whiteleaf, steeplebush.

Habitat—In the pastures of the Northern States, where the soil is neither barren or swampy, hardhack is a flourishing shrub.

Remarks—There are thirteen species of spiræa found in North America, and, altogether, forty-seven species of the genus. Of these, *S. tomentosa*, is the one most valuable, and it is only necessary to speak of it in this place. That *S. salicifolia* (the white hardhack) has medicinal virtues is indisputable, but it will not be necessary to describe it.

General Botany—"Spiræa. Nat. ord., Rosaceæ. Sex. Syst., Icosandria Pentagynia. General character: Calyx, five cleft. Petals, roundish, five. Stamens, numerous. Capsules, three to twelve. Seeds, one to three to each capsule."

Botanical Details (S. tomentosa)—This shrub attains a height of two to five feet. Stem, smooth, bronzed. Branches, downy, rufrus-white. Leaves, alternate, ovate-elliptic, serrate, green above, gray beneath. Flowers, purple, in compound pannicle, made up of lesser pannicles, and terminal. Roots, large and running. Floral season, July–September.

Medicinal Portion—The pharmacopœia designates the sort, but the entire plant is medicinal.

Chemical Composition—It has, as its principal constituents, tannin, gallic acid, and a bitter extractive.

Preparations—Extract; dose, 5–15 grains. Decoction; dose, 1–2 fluidounces.

Physiological Action—Spiræa has valuable astringent properties, with manifestation of a special action on the intestinal mucous membrane. It is also a tonic.

Therapeutical Applications—In cases of diarrhœa, or cholera infantum, where there is great debility, spiræa relieves the local and removes the systemic disorder. In event of peritoneal inflammation, or any acute febrile action, it is not indicated, and should not be used. When a mild astringent is needed, spiræa is of a certain value.

Rubus.

Botany—There are thirty or more species of this genus. Among those most important, and of similar medicinal prop-

erties, are: 1. *R. Canadensis* (dewberry). 2. *R. villosus* (American blackberry). 3. *R. strigosus* (red raspberry). 4. *R. occidentalis* (thimbleberry).

Rubus—Natural order, Rosacæa. Sex. Syst., Icosandria Polygynia. Calyx, five-cleft. Petals, five. Berry, compound and seedy. Their names are so indicative that the botanical details are omitted here as unnecessary.

Habitat—Indigenous to North America.

Medicinal Portion—Bark of root and leaves.

Chemical Composition—Tannic acid, coloring matter, etc.

Antagonists—The earthy salts and mineral acids.

Synergists—Remedies containing tannic acid, and all agents increasing waste.

Physiological Action—Is that of its chief ingredient, tannin.

Therapeutical Applications—*Rubus* is very valuable in cholera morbus, and all bowel complaints requiring an astringent.

Preparations—Fluid extract, syrup, powder.

Hamamelis Virginica.

Synonyms—Wych hazel.

Derivation of Name—*Hama*, "Like to," and *malis*, "Apple."

Habitat—Indigenous to North America.

Botanical Details—A shrub of the order Hamamelaecæ, averaging ten feet in height, and growing usually in sandy soils. The bark is of an ash color; leaves in tufts or lateral, obovate, edges sinuate, and of a dark-green color. The floral season is usually September or October. Each flower is on an ovate scale; calyx four-cleft, of a russet yellow, and ciliated; the petals are four, yellow, and crumpled; stamens, four; styles, two. The fruit is a double nut. "Among the crimson and yellow hues of the falling leaves there is no more remarkable object than the witch hazel, in the moment of parting with its foliage putting forth a profusion of gaudy, yellow blossoms, and giving to November the counterfeited appearance of spring."

Medicinal Portion—The bark and leaves.

Chemical Composition—The active principle would seem to be its most abundant ingredient, tannin. An analysis is wanting.

Preparations—Unofficial. Fluid extract; dose, 3 ss-j. Decoction of bark; dose, $\frac{2}{3}$ ss-j. Infusion; dose, $\frac{2}{3}$ j-ij.

Synergists—Agents increasing waste.

Antagonists—The mineral acids and earthly salts.

Physiological Actions—Hamamelis is an astringent bitter. It is also hæmostatic and abortifacient. Its action is that of tannin. It has a sedative action on the vaso-motor nerves.

Therapeutical Applications—The astringency of hamamelis renders it of value in cholera infantum. The Indians employ it successfully as a local application to tumors, swellings, and inflamed eyes (ophthalmia). The affinity which it possesses for the vaso-motor nerves, which supply the veins, renders it of value in varicose, passive hemorrhages, hemorrhoids, and phlegmasia alba dolens. It relieves epistaxis promptly. In passive inflammatory affections of the air-passages it is curative, and is equally efficacious in leucorrhœa. Dr. N. S. Davis has used it in incipient phthisis with good results.

Ailanthus Glandulosa.

Synonyms—Tree of Paradise.

Habitat—China. Cultivated in the United States.

Medicinal Portion—The bark.

Botanical Details—I cannot see why this tree should be numbered among the *xanthoxyloceæ*, as is commonly held. To my mind it is rather of the order *Rutaceæ*—a rue. Sex. Syst., Polygamia Monoecia. Travelers, who have seen the tree in its native country, speak of it as resembling a giant sumach. In our American court-yards it is more bushy, and rarely more than thirty feet high. The leaves measure, in length, from one to six feet. They are pinnate, and serrated at the base. June is the floral season, and the flowers occur in long, white pannicles. The fruit is a winged seed.

Chemical Composition—The bark contains a resin, lignin, pectin, coloring matter, and several salts.

Physiological Action—*Ailanthus glandulosa* is a powerful nervous depressant. Its essential properties are purgative, anthelmintic, and neurotic. An overdose is poisonous.

Dose—Of the powder, 30 grains; of the fluid extract, 20 drops.

Therapeutical Applications—*Ailanthus glandulosa* is "the Chinese remedy for diarrhœa." It is given in small doses. It is also an anthelmintic, and the dose is ten grains. It is reputed antispasmodic, and has been used in chorea, epilepsy, asthma, singultus, and cardiac palpitation. It is not, however, reliable.

Ailanthus Excelsa.

Habitat—India and Ceylon.

Medicinal Portion—The bark.

Botanical Details—Wanting. "It is a large tree, with a smooth bark."

Chemical Composition—Daji regards as the active principle an acid, which he calls "ailantic acid." It also contains an active alkaloid.

Synergists—This drug resembles quassia in its action and properties, and quassia becomes synergetic.

Physiological Action—This drug is a simple, bitter tonic. It improves the appetite, favors digestion, and thus promotes constructive metamorphosis. It is the more beneficial in small doses and treatment long continued.

Therapeutical Applications—*Ailanthus excelsa* is efficacious in the treatment of diarrhœa and cholera. It has been substituted for quassia with agreeable results, and has been employed in its stead in dyspepsia, anorexia, and indigestion. Like quassia, it has a mild febrifuge power, but cannot be depended on, to the exclusion of other treatment.

Syringa Vulgaris.

Synonyms—Lilac, lilac vulgaris.

Medicinal Portion—The leaves and flowers.

Chemical Composition—The active principle is a bitter crystallizable substance named lilacin.

Botanical Classification—Natural order, Oleaceæ. Family, syringa.

Preparations—The infusion of the leaves and flowers, either dry or fresh, is an eligible form for administration.

Physiological Properties—Lilacin is a slightly astringent tonic. It is not proven antiperiodic, though reported so.

Therapeutical Applications—In diarrhœa lilac is a mild remedy, and useful in combinations. I cannot authenticate it as of other value.

Mullein.

Synonyms—Verbascum thapsus, phlomis, phlox.

Habitat—In waste places throughout North America.

Medicinal Portion—The leaves.

Botanical Details—Nat. ord., Scrophulariaceæ. Sex. Syst. Pentandria Monogynia. This is a biennial plant, with a hairy and woody stem, averaging four feet high. Leaves sessile, and oblong-ovate, woody on both sides. Flowers are yellow, and in a terminal spike. Floral season, July–September.

Preparations—Use is made of an infusion.

Physiological Properties—The smell of mullein is slightly narcotic. The taste is herbaceous and mucilaginous. The uses are as an emollient, demulcent, and a feeble anodyne.

Therapeutical Applications—I have found the smoking of dried mullein useful in laryngitis, and aphonia due to irritation of the larynx. The infusion is used in diarrhœa, and rose cold. The leaves are employed externally, or they are made into an ointment, for treatment of glandular swellings.

Mango.

Synonyms—Mangifera Indica. M. domestica.

Derivation of Name—Mango means “the fruit.”

Habitat—A native of the East Indies. Cultivated.

Botanical Details—Nat. Ord., Anacardiaceæ. Fam., Ana-

cardiææ. A tall tree, with a brownish bark. Leaves alternate, lanceolate, entire. Six inches long, by two wide, in petioles. Flowers, in terminal pannicles, yellow and small. Calyx, lobes, stamens and petals are five. Fruit a reddish drupe, reniform, and of the size of a banana. Seeds, one, central.

Chemical Composition—Independent of the demonstration of the presence of a resin in the bark, we have nothing reliable as to chemistry.

Medicinal Portion—The fruit and bark.

Preparations—Unofficial. Fluid extract; dose, 3 ss.

Physiological Action—The bark is very astringent, and has a terebintheus odor. It has a tonic action on relaxed mucous membranes. Its power of diffusion into the system is feeble. The fruit is relished by the palate, but, like the bark, has an apt astringency.

Therapeutical Applications—Mango is useful in leucorrhœa, and, by the same action, in catarrh, vaginitis, diarrhœa, metritis, and in the salivation of mercury. The essential of its employment in these disorders relates to its astringency, which acts to check discharges. It is also recommended on the same grounds in hemorrhages from the uterus, lungs, intestines, etc. It diminishes too profuse menstruation, lessens the discharge in gleet, and has been named as an agent in the treatment of albuminuria. It has been experimented with in the treatment of diphtheria, but has not proven available in the majority of cases, if at all.

It may be administered per orem, or used as a wash, thrice diluted.

Oryza Sativa.

Synonyms—Oryza, rice, oryzum, eruz, rig, reiss.

Habitat—Native of Eastern Asia. Cultivated in United States.

Botanical Details—Rice is of the family Gramineæ. It is an annual, having a culm three feet high, and long, broad, and unsheathed leaves. Panicle racemose, paleæ oblong, nerved scabrous.

Chemical Composition—Braconnot's analysis finds gluten, starch, gum, sugar, oil, fibrous matter, water, and saline substances.

Therapeutical Applications—Rice is digested in an hour, and has a secondary value as nutriment. It thus becomes well-fitted to be a food for invalids, and is used in all wasting diseases. In diarrhœal disorders it is admirably given, but should be well cooked. Rice-water (decoction) is a good drink for fever patients, and others suffering from inflammatory disorders, combining in itself nutriment and a pleasant drink. Rice flour forms an "alimentary preparation" for infants and invalids, which is not without merits.

Sumbul.

Synonyms—Jatamansi, musk root.

Habitat—Russia and India.

Botany—Not known. Presumably of the order Umbelliferae, and aquatic.

Official Appearance—Sections of root, 2-5 inches long; light brown exteriorly, and of a yellowish color internally. Odor, morchatic.

Chemical Composition—Reinsch demonstrated resin, oil, wax, gum, starch, bitter substance, and sumbulic acid.

Physiological Virtues—Nerve stimulant, astringent, antispasmodic, depressant. Its action resembles valerian.

Therapeutical Applications—A long-time experience has given the profession in Germany and Asia a confidence in sumbul as a remedy for Asiatic cholera. It is beneficial in chorea, epilepsy, hysteria, fainting, asthma, and any purely spasmodic disorder. The Russian physicians employ it for fevers, diarrhœa, and menstrual disorders. Its use in bronchitis and pneumonia is not permanent.

Official Preparation—Tincture; dose, 10-30 ℥. A solid and a fluid extract are also manufactured.

Avens.

Synonyms—Geum, water avens.

Varieties—*G. rivale*, *G. Virginianum*, *G. urbanum*, *G. ver-num*.

Distinction—*G. rivale*, *G. Virginianum*.

Habitat—Wet grounds of Northern United States. Europe.

Medicinal Portion—The root.

Botanical Details—Nat. Ord., Rosaceæ. Sex. Syst., Icosandria Polygynia. Floral season, May–June. Root, perennial, horizontal, jointed, scaly. Stem, usually single, about eighteen inches high, purple color, simple. Leaflets, three and five, pinnate, on hairy footstalks. Flowers, nodding, solitary, and yellowish purple. The calyx, brownish purple. Petals, inversely heart-shaped, clawed. Styles, slender, dark purple. Seeds, oval, naked, and uncinat.

Physiological Properties—Tonic and astringent.

Therapeutical Applications—Avens-root has long and justly enjoyed a reputation for diarrhœal disorders and dyspepsia. It is also remedial of leucorrhœa, bronchorrhœa, and gastralgia. It is used in the form of decoction, and may be drank ad libitum.

Abies Canadensis.

Synonyms—*Pinus canadensis*, hemlock, hemlock spruce.

Habitat—Mountains and rocky fields. North America.

Medicinal Portion—The bark and gum.

Preparations—Not officinal.

Botanical Details—Nat. Ord., Coniferæ. A tree forty to seventy feet high, and, when fully grown, is three feet in diameter. Leaves, one-half inch long, green above, glaucous beneath. The flowers are staminate and appear in May.

Chemical Composition—Tannin is very abundant, and there are also present resin, oil, extractive, etc.

Physiological Action—Mildly astringent to mucous tissues. Indirectly a tonic.

Therapeutical Applications—In diarrhœa the fluid extract of hemlock is valuable, curing altogether by local application.

For gastric catarrh, leucorrhœa, and locally for hemorrhoids, it is efficacious, if judiciously employed. Decoction of hemlock bark, or the bark used in beer, is a domestic remedy for general debility.

Belæ Fructus.

Synonyms—Bael fruit, covolam, cratæva, bela.

Habitat—East Indies.

Position—Unofficial (Br.).

Preparations—Ext. Bel. Lig; dose, f 3 j-ij.

Derivation—"The dried half-ripe fruit of *Ægle Marmelos*,"

Botanical Details—Nat. Ord., Aurantiaceæ. A tree of the size of the apple, and resembling the quince; erect, few-branched, ash-colored, and thorny. Leaves ternate, with oblong-lanceolate leaflets, crenulated. Flowers large, white, in terminal panicles. Fruit, a berry of the size of an orange, with a hard shell, cellular, mucilaginous, and filled with seed.

Physiological Properties—Bael fruit is astringent to the mucous membranes.

Therapeutical Applications—By virtue of its astringency bael fruit becomes remedial of diarrhœal disorders. It is much used in India, its native habitat, but is little known in this country.

Coto Bark.

Habitat—Bolivia and Brazil.

Medicinal Portion—The bark.

Preparations—(Unofficial.) Tincture, dose ʒi-3 ij; fluid extract, dose ʒi-x.

Botany—Not yet known. I have not been able to find a description of the tree.

Chemical Composition—The active principle is cotoin, and there is also another alkaloid, paracotoin. There are also present, resins, oil, and lignin.

Official Appearance—This bark, of which so little is known, comes from central Bolivia and Brazil in small quantities. It

occurs in cinnamon-colored, pieces, two decimetres long by 10 mm. diameter.

Physiological Action—The taste is aromatic or spicy. The action is anhydritic to some extent, and tonic to the intestines.

Therapeutical Applications—In Germany most striking success has been had with this bark in the treatment of diarrhœal disorders. It is proposed as a specific. In night sweats, rheumatism, uterine colic, and gastric catarrh, it is a remedy. With the native Indians of Bolivia it is used as a remedy for toothache.

DYSPEPSIA.

- | | |
|----------------------------------|---|
| 1. Pepsin. | 19. <i>Pulsatilla</i> . (<i>Vide amaurosis</i> .) |
| 2. Ingluvin. | 20. Bismuth. |
| 3. Milk. | 21. <i>Gentiana quinqueflora</i> . (<i>See intermittent fever</i> .) |
| 4. Arsenic. | 22. <i>Populus</i> . (<i>See intermittent fever</i> .) |
| 5. Mineral acids. | 23. <i>Paraguay Tea</i> . (<i>See note</i> .) |
| 6. Manganese. | 24. <i>Eugenia cheken</i> . (<i>See note</i> .) |
| 7. Iron. | 25. <i>Calamus</i> . (<i>See note</i> .) |
| 8. Simple bitters. | 26. <i>Eupatorium</i> . (<i>See note</i> .) |
| 9. <i>Carrot</i> . | 27. <i>Coca</i> . |
| 10. <i>Rossolis</i> . | 28. <i>Chiretta</i> . |
| 11. <i>Nux Vomica</i> . | 29. <i>Capsicum</i> . |
| 12. Hydrastis. | 30. <i>Helonias Dioica</i> . |
| 13. Sulphurous acid. | 31. <i>Blood</i> . |
| 14. Nitrate and oxide of silver. | 32. <i>Malt</i> . |
| 15. Xanthoxylin. | 33. <i>Avena</i> . |
| 16. Sanguinaria. | 34. <i>Ailanthus excelsa</i> . |
| 17. Wine. | |
| 18. Gentian. | |

DESCRIPTIVE NOTES.

Paraguay Tea.

Synonyms—*Ilex paraguensis*, *I. maté*, *maté*.

Habitat—The Pacific countries of South America.

Medicinal Portion—The leaves.

Botanical Details—The *ilex paraguensis* is a true holly, but further than this very little is settled as to its botanical place. Reference as to its growth will be found below. Leaves are ovate ; flowers white.

Chemical Composition—The compound ingredients are tannin, thein or caffein, resin, sugar, gum, wax, water, apotheme, and others minor. The active principle is analogous to or identical with caffein.

Physiological Action—The leaves have a bitter taste and a balsamic odor. In large doses they are emetic and cathartic. It exhilarates and soothes, but is not narcotic. In the finer sense of the term it is stomachic.

Therapeutical Applications—As a diet drink in depressing diseases this drug becomes medicinal. In atonic dyspepsia, low nervous condition, and in extreme prostration of the vital powers it is valuable.

Historical—A few words as to the drug will not be amiss. The yerba or maté trees are found in the forests that line the rivers of Paraguay, and where their growth is principal the woods are locally known as yerbales. The tree is of the size of our mountain ash, and its sheeny roughness is admired by all who see it. To the Indian of Paraguay the tree is almost an object of reverence. Like the tea of China, the maté derived from the yerba maté is to the South American both meat and drink.

At the time of gathering the Indians proceed to the forests, where they collect into vast piles all of the yerba leaves, branches, and sprigs in reach. These are then thoroughly scorched and packed in a sacking of raw hide, which contracts as it dries, until the yerba is compressed to an almost solid mass. It is in this condition that it is marketed.

The Indian women infuse the herb in a small gourd, and the cup sweetened, and treated to milk, forms a very agreeable drink. The fair half-breeds of the Paraguay hills tell the traveler that he cannot learn their language, throw a lasso, or win a maiden, except he learns to love the maté. There is nothing really stimulant in it, but it serves as a means of sustentation to the system. It is particularly acceptable to the traveler

among the mountains, who has to endure fatigue, and hunger, and great heat. Yet maté is not coffee, not exalting the cerebral nerves; nor is it of the nature of tea, as it had no exaltant effect on the peripheric nerves. But it is the common beverage of the South American people and worthy the same prominence at the table that tea and coffee hold.

Eugenia Cheken.

Synonym—Cheken.

Habitat—Chilian forests.

Botanical Place—Order Myrtaceæ.

Therapeutical Possibilities—Cheken promises to be efficacious in treatment of diphtheritis, bronchitis, laryngitis, and dyspepsia. It has been successfully used in treatment of renal and intestinal diseases. Reports of the treatment of cystitis, gonorrhœa, and non-specific urethritis, have been published, and the bearings of the treatment are in the right direction.

A recent paper, which is before me as I write, speaks in enthusiastic terms of Cheken as a remedy for phthisis. The future of experience may demonstrate this true, and place the remedy on a foundation of no little solidity. Cheken is a remedy of great possibilities, but is yet on an undetermined basis.

Calamus.

Synonyms—Sweet-flag, acorus calamus, reed acorus.

Habitat—In clumps; swampy lands; United States.

Medicinal Portion—The rhizoma.

Preparations—(Unofficial.) Substance, dose 3j; infusion, dose $\frac{3}{4}$ j.

Botanical Details—Order, Acoraceæ; Sex. Syst., Alexandria Monogynia. The root is perennial, jointed, half an inch thick, several feet long. Leaves radical, two feet long, ensiform-linear, one inch wide. Scape triangular. Spadix terete, tapering to an obtuse point. Sepals greenish and keeled. Flowering season, May-July.

Official Appearance—Root in flattened pieces, yellowish-brown, spongy-fibrous.

Chemical Composition—Oil, resin, extractive, starch, lignin, gum, and water.

Therapeutical Applications—Calamus is an aromatic stimulant, and a worthy substitute of other costlier aromatics. It is used in dyspepsia where there is much flatulence and uneasiness. For gastralgia it is not without efficacy. Taken in health it improves the appetite and exhilarates the animal spirits.

Eupatorium.

Synonyms—*E. perfoliatum*, thoroughwort, boneset, Indian sage, vegetable antimony, feverwort.

Habitat—Low, swampy grounds of United States and Canada.

Medicinal Portion—The plant.

Botanical Details—Nat. Ord., Compositæ Eupatoriaceæ; Sex. Syst., Syngenesia Equalis. Perennial; stems erect, hairy, branched, three to five feet high; leaves perfoliate, opposite, four to eight inches long; flowers white, in crowded corymbs; calyx scalular, enclosing twelve tubular florets; floral season, July.

Chemical Composition—Eupatorium contains a bitter principle—*eupatorin*,—resin, coloring matter, gum, tannin, extractive, lignin, etc.

Physiological Actions—Eupatorium is tonic, diaphoretic, and mildly diuretic. In large doses it is emetic, and is gently laxative.

Therapeutical Applications—The tonic properties of eupatorium entitle it to respect in the treatment of dyspepsia, and allied conditions, disorders in which it can be highly recommended. Borrowing the practice from the Indians, eupatorium was for some time a remedy for intermittent fever, but has been relinquished of late, although its diaphoretic action in typhoid and the eruptive fevers is still sought. I have used it for bronchitis with excellent success, and its sudorific value is made worthy of its use in rheumatism. Wilkins recommends it for tænia.

It may be considered out of place if eupatorium be accorded

a position among the simple bitters. It does their work, magnifies its position, and is certainly of no little value. In the treatment of general debility it proves its right to the place, and gives very desirable tonic results.

EMPHYSEMA.

- | | |
|-----------------------------------|--|
| 1. Iodide of potassium. | 6. Ether. |
| 2. Lobelia. | 7. Tonics; diet; exercise; sustentation. |
| 3. Chloride or bromide of potash. | 8. Alcohol. |
| 4. Muriate of ammonia. | 9. <i>Quebracho</i> . |
| 5. Cod liver oil. | |
-

EMPYEMA.

- | | |
|------------------------|----------------------|
| 1. Surgical treatment. | 3. Diet; care; rest. |
| 2. Iodine. | |
-

EPISTAXIS.

- | | |
|--------------------------------------|-----------------|
| 1. Insufflation; spraying; plugging. | 4. Tannic acid. |
| 2. Ergot. | 5. Iron. |
| 3. Digitalis. | 6. Hamamelis. |
-

EPILEPSY.

- | | |
|--|-----------------------|
| 1. Bromide of potash and other bromides. | 4. Arsenic. |
| 2. Strychnia. | 5. Argenti nitras. |
| 3. Chloral. | 6. Ammoniated copper. |
| | 7. Filix mas. |

- | | |
|-------------------------|------------------------------|
| 8. Nitrite of amyl. | 16. Purgatives. |
| 9. Belladonna. | 17. Musk; camphor; indigo. |
| 10. Electricity. | 18. Counter-irritation. |
| 11. Oxide of zinc. | 19. Ether or chloroform. |
| 12. Removal of causes. | 20. Water. |
| 13. Chloride of silver. | 21. <i>Sambucus</i> . |
| 14. Opiates. | 22. <i>Sumbul</i> . |
| 15. Valerian. | 23. <i>Alisma plantago</i> . |

FEVERS. (*In General*.)

- | | |
|--------------------------------------|----------------------------------|
| 1. Alcohol. | 8. Muriatic and salicylic acids. |
| 2. Milk; diet; rest; opium; hygiene. | 9. Calomel, or other cathartics. |
| 3. Quinia. | 10. Ether; ammonia; turpentine. |
| 4. Malt. | 11. Iron. |
| 5. <i>Clematis erecta</i> . | 12. Counter-irritation. |
| 6. Aconite and like agents. | 13. Diaphoretics. |
| 7. Hydrotherapy; astringents. | |

[REMARKS—The list of febrifuge remedies may be extended almost *ad infinitum*, but it is not necessary. The above represents the principal therapeutical agents.]

GANGRENE.

- | | |
|------------------------|---|
| 1. Ergot. | 5. Sustaining and hygienic measures. |
| 2. Nitric acid. | 6. Bromine. |
| 3. Turpentine. | 7. Iodine. |
| 4. <i>Eucalyptus</i> . | 8. Carbolic, chromic and salicylic acids. |

GASTRALGIA.

- | | |
|---------------------------|-----------------------------|
| 1. Opium. | 7. Hydrocyanic acid. |
| 2. Pepsin; bismuth; milk. | 8. <i>Hedcoma</i> . |
| 3. Arsenic. | 9. <i>Avens</i> . |
| 4. Zinc oxide. | 10. Strychnia. |
| 5. Chloroform. | 11. Atropia. |
| 6. Galvanism. | 12. Diet, rest, temperance. |

[REMARKS—Other remedies may be named.]

GASTRIC CATARRH.

- | | |
|--|---------------------------------|
| 1. Anodynes; diet; rest; sustentation. | 8. Belladonna. |
| 2. Oxide of zinc. | 9. Cinchona. |
| 3. Arsenic. | 10. Chloride of ammonium. |
| 4. Pepsin; bismuth. | 11. Oxide et nitrate of silver. |
| 5. <i>Eucalyptus</i> . | 12. Calumba. |
| 6. Hydrastis. | 13. <i>Abies canadensis</i> . |
| 7. Acetate of lead; tannic acid. | 14. <i>Rhus glabrum</i> . |
-

GASTRIC ULCER.

- | | |
|------------------------|--------------------------|
| 1. Nitrate of silver. | 11. Acetate of lead. |
| 2. Arsenic. | 12. Ammonio-ferric alum. |
| 3. Iron. | 13. Gallic acid. |
| 4. Pepsin. | 14. Turpentine. |
| 5. Bismuth. | 15. Creasote. |
| 6. Nutrient enemata. | 16. Oxide of silver. |
| 7. Opium. | 17. Belladonna. |
| 8. Ice. | 18. Conium. |
| 9. Counter-irritation. | 19. <i>Blood</i> . |
| 10. Hygienic measures. | |
-

GONORRHŒA.

- | | |
|---|--|
| 1. Copaiba. | 16. Salts of zinc, (<i>injection</i> .) |
| 2. Cubebs. | 17. Oil of sandalwood. |
| 3. Turpentine. | 18. <i>Folia Carobæ</i> . (<i>Vide syphilis</i> .) |
| 4. Cantharides. | 19. <i>Cercis Canadensis</i> . (<i>Vide diarrhœa</i> ,
<i>etc.</i>) |
| 5. Chloride of iron, (<i>locally</i>). | 20. <i>Mango</i> . (<i>Vide diarrhœa</i> , <i>etc.</i>) |
| 6. Colchicum. | 21. Gentian. |
| 7. Tannic acid, (<i>injection</i> .) | 22. <i>Gurjun balsam</i> . (<i>See note</i> .) |
| 8. Nitrate of silver, (<i>locally</i> .) | 23. <i>Boldo</i> . (<i>See note</i> .) |
| 9. Mercurials. | 24. <i>Gonania</i> . (<i>See note</i> .) |
| 10. Bismuth, (<i>injection</i> .) | 25. <i>Sarracenia Flava</i> . |
| 11. Hydrastis. | 26. <i>Yerba Santa</i> . |
| 12. <i>Epigæa repens</i> . | 27. <i>Kava-Kava</i> . |
| 13. <i>Purslane</i> . | 28. <i>Yerba Reuma</i> . (<i>See note</i> .) |
| 14. Sulphate of copper, (<i>injection</i> .) | |
| 15. Acetate of lead, “ | |

DESCRIPTIVE NOTES.

Gurjun Balsam.

Definition—A product of the *diptere carpus turbinatus*, an Indian tree of the Order Dipteraceæ.

Nature—A resin.

Production—Extraordinary quantities are produced, thirty to forty gallons being frequently obtained from one tree.

Chemical Composition—Gurjun balsam is an oleo-resin, yielding a volatile oil on distillation, and leaving behind a resin containing a crystallizable acid, termed *gurjunic acid*.

Physiological Action—Gurjun balsam irritates the mucous membrane of the alimentary tract, and thus promotes the secretion of the glands with which it comes in contact. Special action is on the skin and mucous surfaces.

Preparations—It is used in substance.

Therapeutical Applications—This is a remedy to be used in place of copaiba, having all of its virtues, and none of its ill effects. It is a success in gonorrhœa, vaginitis, cystitis, balinitis, bronchorrhœa, and all diseases of the mucous surfaces. In leprosy, and in other chronic cutaneous diseases, it has been used good results.

Boldo.

Synonyms—Boldoa Fragrans, Peumus Boldo.

Habitat—Indigenous in the Andes of Chili.

Medicinal Portion—The leaves.

Preparations—(Unoffic.) Fluid extract; dose ʒi-v.

Botanical Details—A luxuriant evergreen tree of the family Monomeacaciæ, growing to a height of twenty feet. The tree is very aromatic; the leaves are oblong, coriaceous, rough, and opposite; flowers in yellow cymes; fruit small, yellow, and of a peculiar aromatic taste.

Chemical Composition—An alkaloid, Boldine, and a volatile oil are abundant.

Physiological Properties—A tonic. Acts especially on the liver and digestive organs, and mucous surfaces.

Therapeutical Applications—In gonorrhœa, where there is considerable atony, boldo is distinctly remedial. In hepatic torpor, dyspepsia and biliousness it is a desirable agent in treatment. Zaremba recommends it in rheumatism, blennorrhagia, and for tænia. Other uses are for cystitis, and intestinal atony. Recently boldo has been used tentatively for yellow fever, but cannot yet be pronounced upon.

Gonania.

Synonyms—*G. Womigensis*, Chewstick, Goyana.

Habitat—The Antilles and Brazil.

Medicinal Portion—The bark.

Official Appearance—Chewstick appears in cylindrical pieces, about ten inches long, and of the thickness of the thumb.

Botanical Details—Nat. Ord. Rhamnææ. A climbing shrub, with elliptical glabrous leaves, pubescent racemes, and winged capsules. The bark is of a greyish-brown color.

Chemical Composition—It contains a bitter principle, mucilaginous matter, resin, sugar, etc.

Physiological Properties—Gonania is an aromatic bitter, having a tonic effect on the mucous membranes. It excites secretions, and is therefore expectorant, diuretic, laxative. It is stomachic and a pleasant bitter.

Therapeutical Applications—Gonania is useful in gonorrhœa. In ascites it has not the value claimed for it. In pulmonary diseases it has a local action and is also tonic to the existing debility.

Sarracenia Flava.

Synonyms—Trumpet plant, fly-catcher, huntsman's cup, pitcher plant, sarracenia.

Habitat—The Southern States.

Medicinal Portion—The root.

Derivation of Name—In honor of Dr. Sarrazin of Quebec.

Botanical Details—The flower is of a greenish-yellow. The

plant has semi-procumbent leaves, and grows in the woods in moist places. I am unable to give a true botanical description.

Preparations—A tincture and a fluid extract are prepared. The dose of the latter is ℥v–xv.

Chemical Composition—Analysis reveals lignin, resin, coloring matter, an acid salt of lime, and an alkaloid, *sarracenina*, of astringent nature.

Physiological Properties—This drug is a stimulant tonic to the mucous surfaces, and tonic to the system.

Therapeutical Application—*Sarracenia flava* is nominated to cure gonorrhœa, and leucorrhœa, used as an injection. It is effective in diarrhœa, dyspepsia, and gastralgia. In cholera morbus it is not as useful as some other remedies, but is not valueless. It was formerly considered a prophylactic of variola!

Yerba Reuma.

Synonyms—*Frankenia grandifolia*, flux herb.

Habitat—About the foot-hills of the coast range of mountains, California.

Preparations—(Unofficial.) Fluid extract; dose gtt. x–xx.

Medicinal Portion—The plant.

Botanical Details—An herbaceous plant, not common, but found hidden among the foot-hills. Unfortunately its botany is not yet determined.

Chemical Composition—The analysis of Jungk shows the following-named principles: Water, resin, extractive matter, tannic acid, chlorophyll, greenish coloring matter, starch, pectine, gum, cellulose, lignin, oxalic acid, earthy salts, etc.

Physiological Properties—Dr. Bundy, the gentleman who has the honor of introducing yerba reuma to the profession, claimed more for it than it has sustained. It has proven to be an alterative of the mucous membranes,—and that is all. Other claims are unfounded.

Therapeutical Applications—Yerba reuma is beneficial in diseases of the mucous passages of the throat and nares,—catarrh, laryngitis, etc., and in like diseases, as gonorrhœa, leucorrhœa, and urethritis. Applied topically, it is a cure for ophthalmia. For dysentery and diarrhœa it has a secondary,

and yet a positive value. Contradictory reports have however been written, and the truth of the matter is yet to be named.

Bundy, with pardonable enthusiasm, seconds the reputation of the drug, and also recommends it in coryza and ozæna. Weinstein prescribes it for herpes zoster, applying it externally. Helmick has borne later testimony in the same direction.

An Ohio physician terms yerba reuma his "sheet anchor" for gleet, and it is certainly valuable. The treatment is by careful injection.

To summarize what we have briefly said: Yerba reuma is a remedy for nasal catarrh, gonorrhœa, and all purely local diseases involving mucous tissues.

GOUT.

- | | |
|--|-----------------------------------|
| 1. Colchicum. | 11. Mineral waters. |
| 2. Alkalies. | 12. Milk. |
| 3. Citrate of lithium. | 13. Water—packs, drink, bath. |
| 4. Oxygen by inhalation. | 14. Iron. |
| 5. Change of climate; diet; hygienic measures. | 15. Manganese. |
| 6. <i>Æsculus hippocastanum</i> . | 16. Benzoic acid. |
| 7. Ammonia. | 17. <i>Cimicifuga</i> . |
| 8. Opium. | 18. <i>Pulsatilla</i> . |
| 9. Chloroform. | 19. Sulphur. |
| 10. Belladonna, (<i>locally</i> .) | 20. <i>Rhododendron maximum</i> . |
| | 21. <i>Mikania Guaco</i> . |

HEMORRHAGE.

- | | |
|-------------------------|---|
| 1. Perchloride of iron. | 8. Transfusion. |
| 2. Acetate of lead. | 9. Monsel's solution and acetate of iron. |
| 3. Tannic acid. | 10. Ammonia. |
| 4. Ergot. | 11. Tincture of iodine. |
| 5. Turpentine. | 12. Sulphate of magnesium. |
| 6. Digitalis. | 13. Alum. |
| 7. Sulphuric acid. | |

- | | |
|----------------------------------|--|
| 14. <i>Nux vomica</i> . | 21. <i>Belladonna</i> . |
| 15. <i>Krameria</i> . | 22. <i>Aconite</i> . |
| 16. <i>Rhus Aromatica</i> . | 23. <i>Areca nuts</i> . |
| 17. Vinegar. | 24. <i>Asclepias Curassavica</i> . (See note.) |
| 18. Ice. | 25. <i>Sabal Serrulata</i> . |
| 19. <i>Ipecacuanha</i> . | 26. <i>Mango</i> . |
| 20. <i>Hamamelis virginica</i> . | 27. <i>Orobanche Virginiana</i> . (See note). |

DESCRIPTIVE NOTES.

Asclepias Curassavica.

Synonyms—Blood-flower, redhead, bastard ipecacuanha.

Habitat—The Antilles.

Medicinal Portion—The root.

Botanical Details—This is a pretty species of *asclepias*. The leaves are opposite, lanceolate, petioled acute, and smooth. Stem green, round, upright, milky, jointed, and two feet high. Flowers are red, and in erect umbels.

Derivation of Name—"Blood-flower" because it is hæmostatic.

Physiological Action—This plant is hæmostatic, emetic, anthelmintic, and cathartic. It also has a special action on the mucous membranes.

Preparations—Not officinal. Fluid extract; dose, 3 ss.

Therapeutical Applications—"Faith is the substance of things hoped for" in the use of stranger remedies. Without faith, and without trial, it could not be believed that this plant is hæmostatic, but it stops bleeding when other remedies fail. It deserves the honor. It is anthelmintic, but it is too powerfully depressant for ordinary use. The same may be said of it as an emetic. It is of use in gleet, and leucorrhœa, but it is notoriously uncertain in its action.

Orobanche Virginiana.

Synonyms—Cancer root, beechdrops, broom rape.

Habitat—A parasitic plant on roots of beech trees.

Botanical Details—A parasitic, fleshy plant, of the family *Orobanchoidæ*, having a tuberous, scaly root, and a smooth

stem of about twelve inches height, furnished with yellowish scales, and without verdure. It is not abundant.

Preparations — Non-official. There is a fluid extract of which the dose is ten to thirty drops.

Medicinal Portion—The entire plant.

Physiological Action—There is no article in the *materia medica* that is more disagreeable to the taste. It is bitter, astringent, nauseous, and fetid. Its action is as potent as its taste. Astringency is its great virtue.

Therapeutical Applications—This drug was introduced as a topical remedy for cancer, but proved valueless. By accident it was employed as a hæmostatic, and has made for itself a reputation of some importance. For diarrhœa it has been found valuable, and is accounted an excellent remedy. There is however some difficulty in obtaining a fluid extract from the fresh plant, without which it is inert.

HEPATIC DISORDERS.

- | | |
|-------------------------------|------------------------------------|
| 1. Cholagogues. | 9. Alkalies. |
| 2. <i>Wood betony</i> . | 10. <i>Five-flowered gentian</i> . |
| 3. <i>Caper bush</i> . | 11. Alcohol. |
| 4. <i>Euonymus</i> . | 12. Ice, (<i>externally</i> .) |
| 5. Aconite and like remedies. | 13. Electricity. |
| 6. Nitro-muriatic acid. | 14. <i>Buckeye bark</i> . |
| 7. Morphia. | 15. <i>Grindelia squarrosa</i> . |
| 8. Anæsthetics. | |

[REMARKS—Above embrace principal remedies.]

HICCOUGH.

- | | |
|--------------------|-----------------------|
| 1. Sulphuric acid. | 5. Assafoetida. |
| 2. <i>Sumbul</i> . | 6. Draughts of water. |
| 3. Capsicum. | 7. Chloral, etc. |
| 4. Musk. | |

HYDROPHOBIA.

1. *Xanthium Spinosum*. (See note).
2. *Hoang-Nan*.
3. *Alisma Plantago*. (See note).

DESCRIPTIVE NOTES.

Xanthium Spinosum.

Synonym—Spiny burrweed, or burreed.

Habitat—Europe. Especially France.

Medicinal Portion—The entire plant.

Physiological Properties—The action of *xanthium spinosum* is that of a diaphoretic, sialagogue, and diuretic. It causes a rise of temperature and acceleration of circulation.

Preparations—Powder; dose, 60 centigrammes. Fl. ext.; dose, 10 gtt.

Therapeutical Applications—Grzymala is enthusiastic over this plant as a remedy for hydrophobia, but upon trial its reputation as an antirabic has dimmed, and it is by no means the specific that it was named. Still it is possible that the drug may deteriorate by keeping, and thus explain its failure. A Dr. Goff reports using it with apparent success for epilepsy, but nothing is all-proven. The remedy is little known. It may be of value; and again it may be worthless. It deserves our investigation.

Alisma Plantago.

Synonyms—Water plantain, *P. aquatica*, *A. lanceolata*.

Habitat—"A plant growing in stagnant waters the world over." In the United States it is rare, and found in pools and ditches.

Medicinal Portion—The root and leaves.

Preparations—Powdered root; grs. x-3 iij. Powd. leaves; 3 j.

Botanical Details—Nat. Ord., Alismaceæ. Sex. Syst., Hexandria Polygynia. Perennial, herbaceous; stems scape-like; flowers monœcious; leaves sheathing at base.

Physiological Actions—The fresh root has an acrid taste, and an odor resembling that of Florentine orris. The leaves are vesicant. The essential properties of the drug are antispasmodic and having a urino-genital action.

Therapeutical Applications—From out of Russia came the report a few years ago, that water plantain is curative of hydrophobia, but the fallacy was exploded, and the drug's antispasmodic powers are now best exerted in treatment of chorea and epilepsy. It is also used for renal calculi and diseases of the bladder, for which it is both excellent and reputable.

HYSTERIA.

- | | |
|------------------------|-------------------------|
| 1. Assafoetida. | 7. Cold douche. |
| 2. Capsicum. | 8. Removal of cause. |
| 3. Valerian. | 9. Hygiene. |
| 4. Musk. | 10. <i>Sumbul</i> . |
| 5. <i>Eucalyptus</i> . | 11. <i>Dracontium</i> . |
| 6. Ether. | |
-

HYPPOCHONDRIASIS.

- | | |
|-----------------------------|--|
| 1. Assafoetida. | 7. Conium. |
| 2. Arsenic. | 8. Hyoscyamus. |
| 3. Saline mineral waters. | 9. Valerian. |
| 4. Opium. | 10. Chloral. |
| 5. <i>Jamaica dogwood</i> . | 11. Mental medicine; change; removal of cause. |
| 6. Bromides. | |
-

IMPOTENCE.

- | | |
|--|-----------------|
| 1. <i>Damiana</i> . (<i>Vide amenorrhoea</i>). | 6. Strychnia. |
| 2. Iron. | 7. Arsenic. |
| 3. Phosphorus. | 8. Cantharis. |
| 4. Quinia. | 9. Sanguinaria. |
| 5. Temperance; diet; removal of cause; change. | 10. Marriage. |
| | 11. Capsicum. |

ICTERUS.

- | | |
|---------------------------------|---------------------------|
| 1. Cholagogues. | 10. Nitro-muriatic acid. |
| 2. <i>Cascara sagrada</i> . | 11. Alimentation. |
| 3. <i>Enonymus</i> . | 12. Phosphate of soda. |
| 4. <i>Antirrhinum linaria</i> . | 13. Iron. |
| 5. <i>Wood betony</i> . | 14. Manganese. |
| 6. <i>Caperbush</i> . | 15. Quinia. |
| 7. <i>Helonias dioica</i> . | 16. Alkalies. |
| 8. <i>Agrimonia eupatoria</i> . | 17. Chloride of ammonium. |
| 9. Hydrastis. | |
-

INSOMNIA.

- | | |
|--|----------------|
| 1. Chloral. | 6. Galvanism. |
| 2. Opium. | 7. Phosphorus. |
| 3. <i>Jamaica dogwood</i> . (<i>Vide neuralgia</i> .) | 8. Atropia. |
| 4. Bromides. | 9. Alcohol (!) |
| 5. Humulus. | |
-

INTERMITTENT FEVER.

- | | |
|---|----------------------------------|
| 1. Quinia. | 14. <i>Grindelia squarrosa</i> . |
| 2. Arsenic. | 15. Carbazotate of ammonium. |
| 3. <i>Eucalyptus</i> . | 16. <i>Sabbatia stellaris</i> . |
| 4. Hydrastis. | 17. Benzoin odoriferum. |
| 5. Chloroform. | 18. <i>Cephalanthus</i> . |
| 6. Morphia. | 19. <i>Dita</i> . |
| 7. <i>Petroselinum</i> . (<i>Vide amenorrhœa</i> .) | 20. <i>Helianthus annuum</i> . |
| 8. Salicin. | 21. <i>Sabbatia elliottii</i> . |
| 9. <i>Jamaica dogwood</i> . (<i>Vide neuralgia</i> .) | 22. Parsley. |
| 10. <i>Simiba cedron</i> . (<i>Vide serpent bites</i> .) | 23. <i>Eupatorium</i> . |
| 11. <i>Five-flowered gentian</i> . | 24. <i>Apocynum cannabinum</i> . |
| 12. <i>Populus</i> . | 25. <i>Jaborandi</i> . |
| 13. <i>Chiretta</i> . | 26. <i>Am. arbor vitæ</i> . |

DESCRIPTIVE NOTES.

Five-flowered Gentian.

Synonyms—*Gentiana quinqueflora*, common gentian, bilious weed, frost blow, earth gall, frost bloom, ague weed, enzian (Ger.), gentian (Fr.), genziana (Ital.).

Botanical Details.—*Gentiana quinqueflora* of genus *gentiana*. Sexual system (Linnæus), pentandria digynia. Natural order, *Gentianaceæ*. Generic character: corolla monopetalous and serrated. Capsule, single-celled, and close divided into two lateral receptacles.

Family Relations—*Gent. lutea*, *G. catesbaia*, *G. punctata*, *G. purpurea*, *G. macrophylla*, *G. pannonica*.

Descriptive Botany—*G. quinqueflora* is one of the most humble plants of its species. It is a small, shrubby, and fleshy plant, erect, and bearing sessile, ovate, fine-veined leaves, of a subdued yellow in color, laid on the axils of the upper leaves, and first appearing about September. The corolla is segmented and set gracefully in the centre of five short stamens that are almost hidden in the reflected folds of the semi-membranous calyx.

Habitat—The plant affects shady sward on a northern exposure, and grows in Pennsylvania, (especially on the banks of the upper Susquehanna river,) Georgia, and perhaps in some of the Northwestern States. It is not generally known in this country, has no place in the European flora, and is not at all hardy where found.

Medicinal Portion—The entire plant may be used. The peculiar virtues of the herb seem to be more particularly resident in the root.

Chemical Composition—Like *G. lutea*, and *G. catesbaia*, *G. quinqueflora* contains gentianine, (which may be isolated in quantity), and traces of gentisic acid. These properties, if there were none other, would relegate *G. quinqueflora* as a substitute for *G. lutea*.

Preparations—Unofficial formulæ may be made, including:—
Extractum gentianæ fluidum.—Fluid extract of gentian, (pre-

pared in the same manner as the officinal fluid extract). Dose 3 ss-3 ij.

Mistura gentianæ (like the officinal).

Infusum gentianæ comp.—Compound infusion gentian. (Gentian, coriander, bitter orange peel.) Dose, 3 j- $\frac{3}{4}$ j.

Tincture gentianæ comp.—Compound tincture of gentian. (Same as officinal.) Dose, 3 ss-3 ij.

Antagonists and Incompatibles.—The metallic salts, alkalies, ammonium, iodine, mercury, alum, gallic and tannic acid, colchicum, sarsaparilla, guiacum, xanthoxylum, sanguinaria, stillingia, vegetable astringents.

Synergists.—Mineral acids, iron, bismuth, pepsin, arsenic, eucalyptus, phosphorus, cinchona, aconite, etc.

Physiological Action.—Five-flowered gentian, in a fresh state, has a sweetish and mucilaginous taste when first taken into the mouth, but imparts a pleasant bitter on mastication. It increases the flow of saliva, and secretion from the gastric glands, promotes the secretion of the mucous membrane of the entire alimentary tract, and in consequence increases the digestive capacity, excites the appetite, and adds to the force of the circulation. It is tonic, favoring assimilation, and by improving nutrition enriches the blood. Like other stimulants it tires out the stomach and irritates the bowels, by prolonged use, causing gastric catarrh, nausea, and even diarrhœa. It diminishes the reflex action of the spinal cord, and prevents decomposition. Like quinia it does not affect the normal temperature to any great extent, but has a considerable effect on the temperature of fever. Against its use no constitution presents any idiosyncrasy.

Therapeutical Applications.—Gentiana quinqueflora possesses in a high degree the characteristic powers of the European gentian, being in no sense its inferior. It may be used where its better-known namesake is indicated. It has been long employed in domestic practice where it is known, and is said to have been a favorite medicinal herb of a tribe of aborigines that formerly lived in the Valley of the Susquehanna. To the red man it was valuable as a regulator of the digestive apparatus; to the Pennsylvanian farmer and the Georgian negro

it is of value in "bitters," as an anti-periodic, and in liver troubles.

Its most important use in the treatment of malarial diseases. The reason for this cannot be deduced from any evidence put forth in its physiological actions, although it is admissible that it has an action in arresting decomposition and an indefinite toxic action on minute organisms. Testimony in its favor is not wanting, and there are not a few practitioners who have given it a place far in advance of quinine. It is well adapted to chronic ague where there is much debility, and has had favorable results where other antiperiodics have failed. It prevents the recurrence of chills, and the patient suffering from intermittent fever needs no preparatory treatment to precede the use of the gentian. Although it is antagonist of the disease, it is not warranted a prophylactic, yet it saves after-exhaustion by prophylaxis. The maximum effect is soon attained, and elimination is rapid. There is no established dosage, but it may be given in large doses without fear of toxic action. Another excellent virtue possessed by gentiana quinqueflora relates to the fact that after its use the organs damaged by the malarial poison do not need reparative treatment. After the use of gentiana quinqueflora there are no ill after-effects.

In convalescence from acute diseases, gentiana quinqueflora promotes the the appetite and digestion.

Good results are obtained in constipation by the use of five-flowered gentian.

In fevers, the several antipyritics,—aconite, quinine, belladonna, etc.—have in the five-flowered gentian a valuable adjuvant. It is approved by those who have used it in scarlatina.

In hepatic disorders there are few medicines of more worth. It may be given alone or in combination with or other correctors of the biliary apparatus,—podophyllin, leptandra, etc. The profession are ready to welcome to the materia medica a new and reliable cholagogue, and it has it in the five-flowered gentian.

It is valuable for those patients who are always "blue," and whose bad symptoms are due, in a certain measure, to atony of the digestive organs. In dyspepsia it serves a like purpose. Its tonic powers are well exerted in nervous dis-

orders, especially in hysteria and nervousness of the menopause.

* In migraine varying success is had with this remedy. Cases of scrofula have improved under its use, and it has proved useful in combination with iron in amenorrhæa.

Populus.

Species—*P. nigra*, *P. tremula*, *P. tremuloides*, *P. graridentata*, *P. levigata*, *P. monilipra*.

Common Name—Poplar.

Habitat—America, Asia and Europe.

Botanical Details—Nat. Ord., Salicinæ; family, Populus. The poplars are large trees. Leaves alternate, triangular-ovate, with lateral-compressed foot-stalk; flowers in aments, with twenty or more stamens. (Details according to species omitted.)

Medicinal Portion—The bark.

Preparations—Unofficial.

Chemical Composition—The active principle is a substance, little understood, named populin. It is of the nature of quinine in color and taste. It is undoubtedly a complex body, and is intimately associated with salicin.

Physiological Action—Poplar bark, especially the bark of *P. tremuloides* is more like quinine in appearance, and properties, than any other known substance. In physiological action it is the same. I know of no agent that is more truly substitutive of the great antiperiodic. If an agent is demanded to take the place of quinine, poplar bark will become the one. Especially in this particular is the bark of *P. tremuloides* (American aspen) valuable. I submit it to be worthy of a place next to quinine as a tonic, and an antiperiodic. It increases cardiac action, diminishes the reflex action of the spinal cord, and is diffused rapidly into the system. An over-dose produces a condition analogous to cinchonism.

Therapeutical Applications—We do not know why cinchona prevents and cures intermittent fever. Equally as inexplicable is the action of poplar bark, and it is of the same value. As a tonic, poplar bark deserves honor. In the treatment of

atonic dyspepsia, the septic and inflammatory diseases, poplar bark may be used with a view to its restorative action. It is commended to a trial in all cases where quinia is useful.

Chiretta.

Synonyms—Agathotes Chirayta.

Habitat—Northern India.

Position—Official.

Preparations—Infusion; fluid extract; tincture.

Medicinal Portion—The entire herb and root.

Botanical Details—Nat. Ord., Gentianaceæ. Sex. Syst., Pentandria Monogynia, annual; 3 feet high; erect, round stem; leafy panicle; leaves opposite, embracing, lanceolate; flowers yellow, with a four-cleft calyx, four stamens, single style, and a two-lobed stigma.

Chemical Composition—Boissel, *et al.*, have extracted sugar, wax, gum, resin, chlorophyll, tannin, chiratin, various salts, ophelic acid, and chiratogenin ($C_{26}H_{24}O_6$).

Physiological Properties—A simple bitter, not unlike gentian in its action. In overdoses it nauseates. It is tonic, and may be hepatic.

Therapeutical Applications—It is useful in dyspepsia debility, etc. It is indicated where a simple bitter is needed, and in India is a cure for remittent, and intermittent fevers. Its use in this country is limited, and its possibilities are dark.

Grindelia Squarrosa.

Synonyms—

Habitat—California.

Position—Unofficial.

Preparations—Fl. ext.; dose gtt. xv-xxx.

Medicinal Portion—The entire plant.

Botany—Order, Compositæ. A deciduous perennial; height 2-8 feet; floral season, May to September.

Chemical Composition—A gum resin is the essential product, but a perfect analysis is lacking.

Therapeutical Applications—Grindelia squarrosa is the Spanish-

American remedy for intermittent fevers. Though but imperfectly known it has a record with the profession, proving it valuable. In paludal diseases of any kind it is of worth. For cystitis, leucocythæmia, enlargement of spleen, torpidity of the liver, and (in combination with yerba santa) for anasarca, it is of a growing value. Bundy recommends it as a local application for skin diseases, sprains, bruises, etc.

Carbazotate of Ammonium.

Synonym—Picrate of ammonium.

Definition—An approved salt of carbazotic acid.

Therapeutical Applications—Although the great and philosophical Erb pronounces carbazotate of ammonium unworthy of use as remedy for intermittent fever, others,—Aspland, Bell, Snider, *et. al.*,—state that they have found the drug a special remedy. Without pronouncing upon it, we recommend its trial.

Frey wrote that the carbazotate of ammonium had the physiological action of belladonna, and at once it took a place as a remedy for pertussis, a place it is entitled to occupy.

It may have other uses than these two which I have named, and these may long be maintained only on a broken ground, yet the remedy deserves and demands a trial. Its production must necessarily be in proportion to the demand, and we may look to find it on the market in an early year.

Sabbatia Stellaris.

Synonyms—"Star Sabbatia."

Habitat—Indigenous to the Western States.

Derivation of Name—From Sabbatis, an Italian chemist.

Preparations—Fluid extract (unoffic.); dose, 3 ss–3 i.

Botanical Details—Nat. Ord., Gentianaceæ. A low-growing biennial shrub. Leaves ovate, sessile, and opposite flowers in corymbs.

Chemical Composition—Although my analysis is imperfect, it

is manifest that among other proximate elements are resin, gum, chlorophyll, a volatile oil, pectin (?) and various salts.

Physiological Properties—*Sabbatia stellaris* is tonic, deobstruent, and feebly anti-periodic.

Therapeutical Applications—In drachm doses, taken every four hours, *Sabbatia stellaris* is a reliable tonic in the convalescence from fevers. As an anti-periodic its use is attended with some measure of success, but it is not absolutely to be depended on. In sick headache, dyspepsia, and forms of paludal neuralgia, it has been found worthy of confidence.

Benzoin Odoriferum.

Synonym—Spice-bush, styrax benzoin, Benjamin.

Medicinal Portion—Benzoin berries, and bark.

Derivation of Name—From its odor, resembling gum benzoin.

Botanical Details—This is an American shrub, six feet high. Bark a pearly gray; leaves two to five inches long, by one broad, scattered, obovate, smooth, green above; glaucous beneath; flowers appear in May, in clusters of a greenish-yellow color; calyx six-cleft; stamens nine; ovary roundish; style clubbed; fruit a red drupe, oval, in bunches of two to five.

Chemical Composition—The berries contain an oil of the cinnamyl series.

Physiological Action—The berries and bark of the spice-bush are stimulant and tonic, and form an agreeable aromatic.

Therapeutical Applications—This drug has been used in intermittent fever, but is of a feeble action, though making a pleasant drink. The country-folk make use of it as a vermifuge, but it is not potent.

Cephalanthus.

Synonyms—*C. occidentalis*, button bush, white wood.

Habitat—Near streams and ponds in nearly all parts of the United States.

Medicinal Portion—The bark of the root.

Derivation of Name—*Cephale*, "head," *anthos*, "flower."

Botanical Details—Nat. Ord., Rubiaceæ; Sex. Syst., Tetrandra Monogynia. This indigenous shrub of the Madder family is well-known. From a stout root its straight and erect stem arises to a height of four to ten feet. The bark is of a rough grey copper color; the leaves are of a bright green, ovate, and of a leathery texture; the flowers are globular, on long foot-stalks, terminal, appearing in July, of a yellowish-white, bristling with long styles; calyx is short, green, hairy, and ends in four lobes; corolla of a greyish-white.

Chemical Composition—Hattan's analysis includes tannin, resin, oil, gum, glucose, starch, a crystallizable acid, a bitter principle, and a substance not unlike saponin.

Preparations—This drug is unofficinal. There is a fluid extract which is very eligible.

Physiological Action—The fresh bark when first tasted is disagreeably bitter, but in contact with the fauces becomes quite pleasant. Its action is that of a tonic, and it is reputed anti-periodic. It is also an expectorant and a laxative, and tends to special action on the muciparous glands.

Therapeutical Applications—Without pretending to be a "substitute for quinine," cephalanthus is a drug which is applicable in the treatment of intermittent fever. It relieves the attack, and is given best in infusion. In the South it is a domestic remedy for obstinate cough, and in the same part of our country is recommended in cutaneous disorders, especially the eczematous. I have it on good medical authority that "there is no remedy for eczema that is equal to cephalanthus," but I have never had any experience with it. Cases of chronic bronchitis, where patients are "all run down," have in cephalanthus a remedy of no small worth. Doses of $\frac{3}{4}$ ss of the fluid extract are advisable.

Dita.

Synonyms—*Alstonia scholaris*, *A. cuneata*, satween, echites scholaris (Linn.) "lignum scholare."

Botanical Details—Dita belongs to the family of Apocynaceæ, tribe of Plumeria, genus *Alstonia*. Generic character—Corolla, a pale greenish-white, its tube four times the length of the

calyx, lined with close reversed hairs, with a narrow mouth closed by a thicket of hairs, and thick glabrous neck. The corolla divides into five round, flat lobules, covered with hair. Inserted upon these lobules are the five alternating stamens, each with pointed anthers, bi-celled, and introrse. Calyx cup-shaped, divided into five pubescent lobes. Pistil having two carpels, ovaries close and veiled with white hairs. Style single, dilated, filiform, and terminating in a double knob. Fruit, two, round, pendulous, smooth, and follicular, about ten inches long, and hanging in clusters. Seeds numerous, oblong, indented on back, three lines in length, orange color, rough, with long and radial tufts of hair at both ends. Embryo with flat cotyledons, and dorsal radicle.

Family Relations—Apocynum androsæmifolium or dogs-bane, A. cannabinum or Indian hemp, A. Hypericefolium.

Descriptive Botany—Dita is a tree which has a tall trunk and spreading branches, and attains a height of fifty feet. The bark is not unlike that of our mountain ash, dark grey, rough, and rugated. The leaves are five or six inches long, short-stalked, lanceolate, tough, prominent midrib, green above, dull beneath. The arrangement is in whorls. The flowers are of a greenish-white, combined in umbels by cymes and every cluster fairly bristling with hairs. It flowers from December to March.

Habitat—This tree grows in the forests of the Philippine Islands, India, Ceylon, Java, Australia, New Guinea, and West Africa. It has been grown in England.

Medicinal Portion—The bark.

Official Appearance—Pieces of bark three to six inches long, and one-fourth inch thick, flat or warped. It is fibrous and leathery. The color is a sepia tint. Taste at first insipid, but afterwards a pleasant bitter. No odor. It is readily pulverized.

Derivation of Name—The names dita and satween are local. Alstonia is in honor of Dr. C. Alston, Botany Professor, Univ. of Edinburg, who died in 1760. "Lignum scholare," so styled because the wood is used in making school writing-tables.

Chemical Composition—Several years ago M. Gruppe of Manilla, obtained from dita bark by a process similar to that used

in obtaining quinine, a bitter, hygroscopic and uncrystallizable substance, which he found to be very bitter, and named ditain. This principle, which is yielded in two per cent. proportion, was later determined to be a mixture of coloring matter and crystallizable substance. Gorup-Bezanetz was inclined to term ditain an alkaloid, but Jobst and Hesse state as a result of a careful investigation that this property of ditain is due to a true alkaloid ditamine, which exists in very small quantities. It is believed that any further investigations will not result in other isolation of principles of an alkaloid nature.

Preparations—It is not officinal. It is obtainable in the form of the powdered bark, or the fluid extract.

Antagonists and Incompatibles—There are indications to believe that dita is antagonized by the vegetable astringents, metallic salts, and gallic and tannic acids. There will doubtless be proven other incompatibles.

Synergists—Iron, quinine, eucalyptus, phosphorus, arsenic, aconite, bismuth, etc.

Physiological Actions—Because of the imperfect acquaintance which we had with this drug, it is difficult to arrive at any distinction of its action on the system. At first taste slight, the bark imparts afterward a decidedly bitter flavor, rendering it pleasant to the palate.

It is said to produce no nausea, and to have a tendency to cause drowsiness. It lowers the temperature, and has a profound static action in lowering the pulse. It has a direct tonic effect on the respiration, although not upon the heart.

Therapeutical Applications—Dita bark is regarded in its native country as a valuable antiperiodic. It has been hoped that it would come to dispossess quinine in some measure, but the minute quantity of alkaloid found would seem to render such a hope groundless. It may have a substitutive action, but it can hardly come into quinine's place. In Manilla, ditain is the pharmacien's "substitute for quinine," and as such is extravagantly praised. The tonic properties of dita render it of value in the debility that follows exhaustive disease. It is more than probable that the tonic effect is of more importance than the antiperiodic action, and that its benignant action upon intermittent fever is due more to its

toning up the system than to its toxic action on the malarial germs. The same may be said of its power over diarrhœa and dysentery, which diseases Waring says it cures. It has not any real action on the diarrhœa, but acting with other remedies, it serves to support the system. From these possibilities, it is altogether probable that it will come to be distinguished as a tonic, acting as an adjuvant to the so-called direct remedies. I think that aside from its tonic effect, it cannot be said, in the present state of our knowledge, to be of much real value. But as a tonic, it has a certain and notable place side by side with the simple bitters. It may take the place of hydrastis, but never that of cinchona.

Commercial Value—Before dita shall have written its place in the pharmacopœia, it is destined to become known in the arts. The concrete juice which is obtained from tree is analagous to gutta percha, possessing its characteristic ductility and elasticity. It is thought that it may be used as insulating material for submarine telegraph wires, but this reputation is not fully fixed.

Helianthus Annuus.

Synonyms—Sunflower, helianthus.

Habitat—Cultivated in nearly all parts of the world.

Medicinal Portion—The seeds.

Botanical Details—Order, Compositæ. Stem 4-8 feet high; leaves measuring 12 inches by 6, or larger; flowers 4-15 inches diameter, flat; rays $\frac{1}{2}$ inch long; akenes obovate-oblong, striated, lead-brown with white margins.

Physiological Properties—All of the parts are of an acrid, bitter taste. The abundant oil which it contains renders it palatable and sustaining.

Therapeutical Applications—Sunflowers planted in a malarious locality afford protection against marsh miasmata, and like eucalyptus, thus become prophylactic of intermittent fever. The abundant oil which may be extracted from the seeds of the sunflower, is of a rich and nutritious complexion, and is

comparable in many respects to linseed oil. It is used as a nutritient medicine for phthisis to some small extent.

Sabbatia Elliottii.

Synonyms—Popularly known as quinine flower.

Habitat—Pine barrens of the Southern seaboard States.

Position—Unofficial.

Preparations—Fluid extract ; dose, f 3 ss-j.

Medicinal Portion—The entire plant.

Botanical Details—A gentian, near related to *S. angularis*; stem low, terete, branched; leaves small, sessile, obovate; flowers white, with a yellow centre. Flower season, August to September.

Physiological Properties—The claim has been put forward that quinine flower is antiperiodic. It may be. I cannot say it is. Its reputation for being substitutive of quinine, rests mainly on its producing phenomena not unlike cinchonism.

Therapeutical Applications—Quinine flower breaks the paroxysms of intermittent fever. It is tonic, and may be used in fevers, and in debility of convalescence, especially if combined with iron.

INCONTINENCE OF URINE.

- | | |
|----------------------------------|---------------------|
| 1. Strychnia. | 4. Ergot. |
| 2. Removal of cause; temperance. | 5. <i>Damiana</i> . |
| 3. Iodide of Iron. | |

INVAGINATION.

- | | |
|--|--------------------------------|
| 1. Enemata, especially effervescent enemata. | 5. Stimulants; diet; exercise. |
| 2. Opium. | 6. Massage. |
| 3. <i>Jamaica Dogwood</i> . | 7. Electricity. |
| 4. Poultices. | 8. Belladonna. |
| | 9. Surgical operation. |

INFLUENZA.

(Vide Bronchitis.)

DISEASE OF THE KIDNEYS.

NEPHRITIS:

- | | |
|--------------------------------------|-------------------|
| 1. Depletion. | 7. Hydrotherapy. |
| 2. Rest. | 8. Turpentine. |
| 3. Fomentations; counter-irritation. | 9. Cantharis. |
| 4. Removal of cause. | 10. Arsenic. |
| 5. <i>Jaborandi</i> . | 11. Quinia; iron. |
| 6. Potassium salts. | |

FATTY DEGENERATION:

- | | |
|----------------------------------|----------------------------|
| 12. Phosphorus. | 19. Capsicum. |
| 13. Milk. | 20. <i>Kava</i> . |
| 14. Digitalis. | 21. <i>Parsley</i> . |
| 15. Urino-Genital Remedies. | 22. <i>Damiana</i> . |
| 16. Gallic Acid. | 23. <i>Urtica Dioica</i> . |
| 17. <i>Tobacco</i> . | 24. <i>Burdock</i> . |
| 18. <i>Agrimonia Eupatoria</i> . | |

LARYNGITIS.

- | | |
|-----------------------------|--|
| 1. Iron. | 13. Nitrate of potassium. |
| 2. Nitrate of silver. | 14. Ipecacuanha. |
| 3. Bichromate of potash. | 15. Tartar emetic. |
| 4. Manganese. | 16. Hyoscyamus. (<i>By atomization.</i>) |
| 5. Aconite. | 17. Laxatives. |
| 6. Belladonna. | 18. Mercury (?) |
| 7. Sanguinaria. | 19. Chloral. |
| 8. <i>Arum</i> . | 20. Opium. |
| 9. <i>Sabal Serrulata</i> . | 21. Ether. |
| 10. Mullein. | 22. <i>Sage</i> . (<i>See note.</i>) |
| 11. Tincture of iodine. | 23. <i>Penthorum Sedoides</i> . (<i>See note.</i>) |
| 12. Sulphurous acid. | 24. <i>Rhus Glabrum</i> . (<i>See note.</i>) |

DESCRIPTIVE NOTES.

Sage.

Synonyms—*Salvia vulgaris*.

Habitat—Native of Europe. Universally cultivated.

Medicinal Portion—The leaves.

Preparations—Infusion *salviæ*; dose *ad libitum*.

Botanical Details—A shrubby perennial, furnished with opposite, crenulate leaves of a greyish-green color. Flowers bluish, in terminal spikes.

Physiological Properties—Sage is astringent, aromatic, tonic, carminative, and stimulant.

Therapeutic Applications—Sage has been for centuries a homely domestic condiment, and a diaphoretic in common use. Its utility in laryngitis as a gargle, in combination with alum, is well established. For night sweats it has a reputation of worth. Once sage was almost a panacea, as witness these monkish lines:

“Cur moriatur homo cui *salvia* crescit in horto?

Contra vim mortis non est medicamen in hortis.

Salvia salvatrix, naturæ conciliatrix.

Salvia cum *ruta* faciunt tibi pocula tula.”

Penthorum Sedoides.

Common Name—Virginia, or ditch stone-crop.

Habitat—Distribution through the United States.

Position—Unofficial.

Preparations—Fl. ext.; dose gtt. x-xx.

Medicinal Portion—The entire plant.

Botany—Ord., Crassulacæ. Stem erect, branched, 12-14 inches high; leaves lanceolate, sessile, and serrate; flowers small, sessile, and in racemes; seeds minute.

Physiological Action—This remedy is “restorative” of the mucous membranes, removing irritation, and promoting healthy action. Its properties are astringent, demulcent, laxative, and diuretic.

Therapeutical Applications—That class of diseases characterized by affection of the mucous membrane of the throat, nares, etc.—pharyngitis, catarrh, laryngitis, etc.—are relieved by this remedy. Briggs commends it for diarrhœa. It is used in disorders of the urinary organs. For gastric catarrh it is distinctly beneficial. Other recommendations name it remedial of dyspepsia, vaginitis, intestinal catarrh, and bronchitis. The author has never employed it.

Rhus Glabrum.

Synonyms—Smooth sumach.

Habitat—Indigenous to North America.

Botanical Details—Nat. Ord., Anacardiaceæ; Sex. Syst., Pentandria Trigynia. Tribe, Rhus. A shrub, averaging six feet in height; leaves lanceolate, serrate, glabrous; flowers greenish-red, in terminal, compound thryses; fruit, a small, red, and downy berry.

Medicinal Portion—The fruit and bark of the root.

Preparations are extemporized.

Chemical Composition—In the root are gum, starch, albumen, resin, tannic and gallic acids, and an oil.

Physiological Action—Sumach is astringent, and refrigerant.

Therapeutical Applications—The bark of sumach is an excellent remedy for aphthæ, an infusion being employed as a gargle. Its astringent action is also exerted in relieving nursing sore mouth, and the sore mouth of mercurial salivation. There is no more reliable remedy for laryngitis or tonsillitis, than the infusion as a gargle. Sumach may be used as a cooling drink in fevers, if astringent action is desired.

LARYNGISMUS STRIDULUS.

- | | |
|-----------------|----------------------|
| 1. Chloral. | 8. Tartar emetic. |
| 2. Bromides. | 9. <i>Sambucus</i> . |
| 3. Strychnia. | 10. Lobelia. |
| 4. Ipecacuanha. | 11. Aconite. |
| 5. Quinia. | 12. Belladonna. |
| 6. Iron. | 13. Sulph. copper. |
| 7. Opium. | |

LEAD POISONING.

- | | |
|-----------------|--------------------|
| 1. Strychnia. | 5. Iod. potassium. |
| 2. Alum. | 6. Sulphuric acid. |
| 3. Electricity. | 7. Aconite. |
| 4. Iodides. | 8. Salines. |

LEPROSY.

- | | |
|-------------------------------|----------------------|
| 1. <i>Gynocardia Odorata.</i> | 2. <i>Hoang-Nan.</i> |
|-------------------------------|----------------------|

DESCRIPTIVE NOTES.

Gynocardia Odorata.

Synonyms—Chaulmoogra odorata, chilmorla dodecandra.

Medicinal Portion—The seeds. (*Gynocardiæ semina.*)

Product—Chaulmoogra oil.

Habitat—The Malayan archipelago, and the eastern hill country of India.

Botanical Details—A large tree, having ash-colored bark, and slender limbs. Leaves alternate, 6–10 inches long, distichous, acute, glabrous. On smooth peduncles are the large unisexual clustered flowers. The male flowers differ from the female in having smaller petals, more stamens, and in being more showy. Fruit spherical, on a woody stalk, three to four inches in diameter, ash-grey, uni-cellular, indehiscent, pericarp hard. Seeds flat and ovoid, 1–2 inches long, yellowish-buff, brittle testa, embryo oily and fleshy; weight averages about thirty-five grains.

Chemistry of the Seeds—This is as a whole quite incomplete. By expression a heavy fixed oil is yielded, which is of a pale, sherry color, a peculiar odor, and a sp. gr. of 0.900. Recently Moss has made an analysis, finding fatty acids and their

glycerines. Among these is gynocardic acid ($C_{11}H_{24}O_2$). The other acids found are palmitic, cocinic, and hypogæic.

Physiological Properties—Provincially at first, universally, in a measure, at present, chaulmoogra oil is known justly as an alterative tonic. It has been said of late years, and it is still to some extent held, that among medical myths there is none more cloud-constituted or more ill-defined than an alterative. The name has become in a manner opprobrious, until with our best medical teachers it is reached only as a mythical agent. Be all this as it may, and be popular opinion wise or foolish, it is but just to say that there are in existence some very tangible myths, and among these a not undesirable remedy, having an action which is peculiar to its kind, and which may be named alterative or not, is chaulmoogra oil. In large doses the oil has an emetic action. An average dose is five drops, increased gradually. It may also be locally applied.

Adulterations—The seeds of *hydnocarpus venenata* and *H. Wightiana* yield an oil resembling chaulmoogra oil, but more acrid. These have similar properties, and may be regarded as substitutive, though vastly inferior. The true oil is sometimes adulterated with these oils, and the fact of adulteration may serve to account for alleged failures of the oil to perform that which it is reputed as performing.

Therapeutical Applications—Chaulmoogra oil has been an Indian medicine for centuries, and some curious and interesting notices of it are to be found in several of the Hindu treatises on materia medica. Naturally it has come to have many uses, and it may rationally be inferred that others will be multiplied by European and American physicians.

Some ten years ago one Bhandaji, a native physician of Bombay, gave out that he possessed a specific for leprosy. To him from far and near there flocked the miserable sufferers from the foul disease of the east. They came in great numbers, and wealth, favor, and fame blessed the man who presumed to pronounce them curable. Soon, however, the whole thing began to smack of charlatanry. Some were cured, but more gave up the treatment in disgust. Dr. Bhandaji was branded an imposter, and accused of extortion, was forced to relinquish his field. The English physicians at Bom-

bay, noting the means of cure employed by Bhandaji, took up the lines he had woven and laid down, and by investigations less heated and more systematic than that of the Indian, proved the remedy, and found that it was in reality deserving of a name and a place as a cure for leprosy. The government of India officially recognized the oil, and the medicine of the Fakirs and Hakims became incorporated into the Indian pharmacopœia. The dosage of the oil for leprosy varies from 5 to 20 drops *ter die*, and externally a liniment of the oil is applied. As auxiliary, attention is paid to the diet, which must be bland and unirritant.

Living has reported favorably on the effects of this agent in the treatment of *elephantiasis græcorum*. It has also a reputation as a remedy for scabies and other skin diseases, especially for lupus.

Applied externally, this oil is a cure for sciatica, having proved valuable in the practice of some most reliable physicians.

Another, and in many senses the most important use to which chaulmoogra oil is put, is as remedial of pulmonary phthisis. Dr. Wm. Murrell, to whom the profession owes not a little of its practical knowledge of new remedies, gives a very favorable estimate of the value of the drug. He reports benefit derived from the treatment, and names the oil an expectorant. Parallel, Dr. I. R. Yea in an exhaustive paper, denies all but the remotest remedial influence. Others report *pro* and *con*; "both are right and both are wrong." There are those who on the appearance of a newly introduced remedy are about to discover in it wonderful curative properties, which they enthusiastically praise. And there are others, of the speculative-skeptical casts, who dwarf a remedy to insignificance. Given a fair trial, chaulmoogra oil may prove valuable as a remedy for phthisis, and again it may be worthless. The equi-balanced scale is partial now.

Other applications are external use for rheumatism, sprains, neuralgia, and toothache. For the last-named disorder the oil may not act as a specific, but it has a curative action.

Hoang-Nan.

Derivation of Name—A Tonquin word.

Synonyms—*Strychnos gauthieriana*, *hydrocotyle Asiatica*, *hoang-nao*, tropical bindweed.

Botanical Details—Family, *Loganiaceæ*, a liana, allied to false angostura, resembles the clematis. Stem grayish, and creeping. Leaves dark green. Intimate botany unknown.

Habitat—The limestone hills between Anam and Tonquin. Not abundant.

Chemistry—There are present in the bark (which is the part used) two alkaloids not unlike brucia and strychnia.

Physiological Action—Hoang-nan produces tetanic convulsions, and is possessed of toxical properties in overdoses. Its action is analogous to that of brucia and strychnia, manifesting effects on the spinal cord, which it excites to a limited degree, but not as does its analogues. It has been compared all too frequently with these principles, but cannot bear the comparison perfectly.

Therapeutical Applications—The most important use to which *hoang-nan* is applied is in the treatment of paralysis. In relaxation of the members in hemiplegia, and where the paralysis is recent, this remedy is peculiarly efficacious. In rheumatismal, paludal or syphilitic paralysis it achieves important results.

Like strychnia, *hoang-nan* is curative of tetanus, and applicable in the treatment of chorea. It is possible that it may come to be remedial of epilepsy and possibly of neuralgia, but evidence is yet inconclusive. Levy recommends it in infantile convulsions, and it is nominated for the cure of asthma.

The local reputation of the drug names it a cure for leprosy, and there is every reason to believe it will be valuable in that disease. It may not be the best remedy for this foul disorder, but it is certainly one that deserves the enjoyment of a reputation. It calms the fever, cures the ulcers, and is certainly specific, though slow in action.

Noting that the remedy promotes cicatrization of leprous ulcers, it has been employed with a view to securing the same action in scrofulous and other indolent ulcers, and has not disappointed the hopes of its friends. The missionaries to

Tonquin report favorably in this regard. It is said to be equally efficacious for syphilides.

Another local use for hoang-nan is in the treatment of serpent-bites, to which it is an antidote of no mean value. In Annam it is used as a remedy for hydrophobia, and is credited with having given fine results. As Lesserteur has well said, "If this action can be proven it will become a famous remedy."

Other applications, not altogether tentative, nor yet thoroughly proven, relate to its use in the treatment of cutaneous diseases, venereal ulcers, and functional amaurosis. With wonderful non-chalance a few enthusiastic men have advocated hoang-nan as a remedy for intermittent fever, but the day is past when every medicine must be used for a disease that can never go remediless!

LEUCOCYTHÆMIA.

1. Iron.

2. *Grindelia Squarrosa*.

LEUCORRHŒA.

1. Iron.

2. Phosphates.

3. Iodo-tannin.

4. Carbolic and tannic acid lotions.

5. Alum (*locally*).

6. Permanganate of potassa.

7. Bismuth.

8. *Pulsatilla*.

9. Nitric acid solution (*locally*).

10. *Damiana*.

11. *Hamamelis*.

12. *Mango*.

13. *Avens*.

14. *Abies Canadensis*.

15. *Yerba reuma*.

LOCOMOTOR ATAXIA.

- | | |
|-------------------------|--------------------|
| 1. Strychnia. | 10. Phosphorus. |
| 2. Belladonna. | 11. Ergot. |
| 3. Electricity. | 12. Belladonna. |
| 4. Sulphur baths. | 13. Turpentine. |
| 5. Hydropathy. | 14. Bromides. |
| 6. Exercise. | 15. Cod-liver oil. |
| 7. Argenti nitras. | 16. Iron. |
| 8. Iodide of potassium. | 17. Quinine. |
| 9. Chloride of barium. | |
-

MENINGITIS.

- | | |
|-------------------------|---------------------------------|
| 1. Opium. | 8. Veratrum viride. |
| 2. Ice. | 9. Depletion; purgatives; cold. |
| 3. Iodide of potassium. | 10. Bromide of potassium. |
| 4. Aconite. | 11. Iodine. |
| 5. Gelsemium. | 12. Ergot. |
| 6. Oxalic acid. | 13. Stimulus. |
| 7. Belladonna. | |
-

MENINGITIS, CEREBRO-SPINAL.

- | | |
|--|-------------------------------|
| 1. Depletion. | 5. Alcohol. |
| 2. Opium. | 6. Iodide of potassium. |
| 3. Mercury. | 7. Bromides. |
| 4. Cold; blisters; sinapisms; pediluvia. | 8. <i>California laurel</i> . |

MERCURIALISMUS.

- | | |
|----------------------------|--------------------------|
| 1. Bismuth. | 6. Sulphurous acid. |
| 2. Cod-liver oil and iron. | 7. Hyoscyamia. |
| 3. Iodides. | 8. <i>Mango</i> . |
| 4. Tannic acid. | 9. <i>Folia carobæ</i> . |
| 5. Belladonna. | |
-

METRITIS.

- | | |
|------------------|---------------|
| 1. Ergota. | 4. Strychnia. |
| 2. Potassa fusa. | 5. Aconite. |
| 3. Hydrotherapy. | |
-

MOLLITIES OSSIIUM.

1. Phosphorus and the phosphites.
-

MYALGIA.

- | | |
|--------------------------|-----------------------------|
| 1. Electricity. | 4. Arnica. |
| 2. Cimicifuga. | 5. Xanthoxylum. |
| 3. Chloride of ammonium. | 6. <i>Jamaica dogwood</i> . |
-

MYELITIS.

- | | |
|-----------------|----------------------------|
| 1. Ergota. | 3. Hydrotherapy. |
| 2. Electricity. | 4. Ice (<i>locally</i>). |

MUMPS.

- | | |
|------------------|-------------|
| 1. Anodynes. | 3. Salines. |
| 2. Embrocations. | |
-

MUSCULAR SPASM.

- | | |
|-------------------------|---------------|
| 1. Electricity. | 5. Morphia. |
| 2. Anæsthesia by ether. | 6. Bromides. |
| 3. Conium. | 7. Gelsemium. |
| 4. Chloral. | |
-

MYDRIASIS.

- | | |
|-------------|--------------|
| 1. Atropia. | 2. Duboisia. |
|-------------|--------------|
-

DESCRIPTIVE NOTES.

Duboisia.

Synonyms—D. myoporoides.

Position—Unofficial.

Doses—Extract, $\frac{1}{4}$ –1 gr; alkaloid, $\frac{1}{120}$ – $\frac{1}{60}$ gr.

Station—Duboisia is an alkaloid soluble in water.

Incompatibles—Caustic alkalies, muscarine, opium, physostigmine, and pilocarpine. In poisoning, emetics and the stomach-pump should be used, and hypodermic injection of physostigmine or morphia made.

Synergists—Hyoscyamus, belladonna, stramonium, and to some extent atropia.

Physiological Action—Duboisia produces a dryness of the

mouth, difficulty of deglutition, and thirst. Its action on the heart and stomach, and appertinent symptoms are those of atropia. It rapidly diffuses into the blood, and has a paretic effect on the muscles. The primal excitement and rise of pulse, do not continue long, but give place to stupor.

Therapeutical Applications—Of duboisia as a mydriatic, Bartholow says, "duboisia is in general preferable to atropia, owing to the greater rapidity of its action in affecting the dilatation of the pupil, and giving rise to paralysis of accommodation. The refraction of the eye can be determined much better by means of duboisia than atropia." Almost unanimously ophthalmologists have endorsed duboisia. During a comparatively short time atropia has stood prince of the mydriatics; but a prince with glaring faults. Duboisia has now taken its place, and maintains it simply because it possesses none of its disagreeable effects. On the former reputation of atropia there is much that sullies. Of the superiority of duboisia Norris has written: "The local effects of duboisia when applied to the eye are similar to those of atropia; but they are more promptly produced, and disappear more rapidly." Wecker of Paris written: "Duboisine is still more active as a mydriatic than atropine, and is especially valuable in the cases in which the latter excites conjunctival inflammation." Tweedy employs it in all cases in the stead of atropia. Dr. E. L. Holmes, of Chicago, reports favorably on duboisia over atropia. Seely lays considerable stress on the fact that duboisia has a negative effect on the pulse. Little prefers atropia if time of action is of no consideration, but testifies that the efficiency of duboisia is not to be denied. Galezowski has cried, "Atropine is dying! Atropine is dead! Long live duboisine!" The hosts of French and German *savants* have nominated the law, and a noble following unitedly praise the new mydriatic.

Aside from its value in ophthalmological practice, duboisia has other uses. All that which atropia has done, duboisia will do. For a long time we have used atropia as a cardiac stimulant, knowing while we did so, that it exhausts the cardiac ganglia, and hoping for an obviation. Now duboisia has taken the other's place, and proves more valuable.

"Duboisia," says Bartholow, "is destined to take the place of atropia as a remedy for the night-sweats of phthisis." The

same author says, duboisia "is superior to atropia as an hypnotic and anodyne."

Duboisia is equally as valuable for asthma, scarlatina, and pertussis as is atropia, but we must remember not to expect too much from a remedy of which our knowledge is yet limited.

I need not institute a parallel between atropia and duboisia, although in comparison the latter would sustain its part well. That which we have written will show how far substitutive relations exist. But there are many who will ask indignantly: "Does atropia need a substitute?" We can only answer that there are times when silver is substitutive of gold, better though the latter be.

NÆVI.

- | | |
|---|--------------------------------|
| 1. Electrolysis. | 3. <i>Thuja occidentalis</i> . |
| 2. Nitric or chromic acid (<i>locally</i>). | |

NECROSIS.

- | | |
|-----------------------|------------------------|
| 1. Surgical measures. | 3. Villate's solution. |
| 2. Phosphates. | |

NARCOSIS.

- | | |
|---|-------------------------------|
| 1. Apomorphia. | 4. Sulphates copper and zinc. |
| 2. Ammonia. (<i>Intravenous injection</i> .) | 5. Effervescent emetics. |
| 3. Hot and cold douche. | |

NYMPHOMANIA.

- | | |
|-------------------------------|--------------------------|
| 1. Monobromide of camphor.(!) | 5. Bromide of potassium. |
| 2. Hyoseyamus. | 6. Bromide of ammonium. |
| 3. Stramonium. | 7. Cold applications. |
| 4. Tobacco. | 8. Water baths. |

NEURALGIA.

- | | |
|--|--|
| 1. <i>Jamaica Dogwood.</i> (See note.) | 18. Cyanide of potassium. |
| 2. Iron. | 19. Cimicifuga. |
| 3. Quinine. | 20. Physostigma. |
| 4. Bromides. | 21. Cod-liver oil. |
| 5. Opium. | 22. Bichromate of potash. |
| 6. Phosphorus. | 23. Spigelia. |
| 7. Aconite. | 24. Colocynth. (?) |
| 8. Arsenic. | 25. <i>Nitro-glycerine.</i> |
| 9. Belladonna. | 26. <i>Scutellaria.</i> (See note.) |
| 10. Zinci valerianas. | 27. <i>Æsculus hippocastanum</i> (See note.) |
| 11. Galvanism. | 28. <i>California laurel.</i> (See note.) |
| 12. Veratria. | 29. <i>Menthol.</i> (See note.) |
| 13. Turpentine. | 30. <i>Sabal Serrulata.</i> (See note.) |
| 14. Gelsemium. | 31. <i>Tonga.</i> (See note.) |
| 15. Chloroform. | 32. <i>Parsley.</i> |
| 16. Chloral. | 33. <i>Blood.</i> |
| 17. Nitrate of amyl. | |

DESCRIPTIVE NOTES.

Jamaica Dogwood.

Synonyms—*Piscidia erythrina.*

Medicinal Portion—Bark of the root.

Habitat—West India Islands.

Derivation of Name—*Piscis* "a fish," *cædere* "to kill," because of its use in killing fish.

Botanical Details—Nat. Ord., Leguminosæ; Sex. Syst., Diadelphia Decandria. Macfadden describes it as a tree about 20 feet high; leaflets three or four paired, with an odd one, petion-

tulated, oblong. Flowers whitish, with a tinge of purple. Calyx colored, pubescent; stamens nine to one; ovary linear compressed; stigma obtuse; wings four. The leaves are shed annually, the flowers appearing before the new foliage.

Official Appearance—The bark is in quilled pieces of a light-brown color, rough, fibrous, and on fracture having the odor of propylamine.

Preparations—(Unofficial.) Tincture; dose ʒj. Fl. ext.; dose ʒv.—xv.

Physiological Action—On ingestion of the drug there is an increased flow of the salivary secretion. Diaphoresis follows, and other glands take an increased action. The irritability of the motor nerves is not affected, and the peripheral extremities of the sensory nerves are not acted upon. According to Ott, reflex action is reduced by stimulation of the centers of Letschenow, but the production of a tetanoid state is not by this action, but rather by stimulation of the spinal cord. Over-doses and long-continued administration produce this state of paralysis. The pupil is dilated. The pulse becomes less frequent. The arterial tension is but slightly elevated, and falls by weakening of the heart. The toxic effect is not as pleasant as is that of opium, and is more like that of bromide of potassium. Death is produced by paralysis of the centers of respiration. Toxic

Jamaica dogwood does not affect the temperature. Upon the brain its action is not exerted. When it is taken into the stomach there follows a sensation of violent internal heat, gradually extending to the surface, and followed by profuse diaphoresis, and narcotism. There are no after-effects. I am satisfied that its action is purely that of a nerve sedative. Cerebral hyperæmia is not produced, as is the case with opium. It is anodyne, hypnotic, expectorant, sedative. Its possible ill effects are nausea and paralysis. Nerve Sedative

Chemistry—The active principle is a resinoid.

Therapeutical Applications—*Imprimis* let me say that after repeated experiences and reference to the extensive literature of the subject, I am pronounced in the belief that Jamaica dogwood is not, and never can be a true substitute for opium. But in the second place, I am of the opinion that the drug should stand next to opium as an anodyne and sedative. It

has none of the unpleasant effects of the better-known agent, which is, of course, a redeeming feature. But I think, all who are acquainted with the drug, will hold that it is not as powerful or as certain as opium.

Putting comparison aside, it will be asked, "What will the use of Jamaica dogwood accomplish?"

It is more effective in many forms of neuralgia than any other remedy. It seems to be as near a specific as any agent in the materia medica. In facial neuralgia, odontalgia, and nervous headache, it has a wonderfully favorable action. It cures. In sciatica the pain vanishes by its use. Tic douloureux and muscular spasm, are relieved by its agency. Cases of neuralgia of a paludal origin have been successfully treated. A Western authority reports favorably on its use in convulsions attending dysmenorrhœa.

As a simple anodyne, opium is its only peer. There are a multitude of cases where an anodyne is sought for, and this one should stand side by side with opium. Such cases are fractures, rheumatism, cancer, gangrene, and a thousand of others where pain of varying intensity is the feature.

Acting upon the sympathetic nerve, it is a remedy for asthma, œdema glottidis where spasm exists, sick headache, etc.

In large doses it cures ivy poisoning, as no other internal remedy can cure.

Pertussis
It is written that there is but one remedy that will prove reliable in pertussis, and that remedy is belladonna. Hereafter let the praise of Jamaica dogwood be sung. It has a controlling action over those branches of the pneumogastric nerve that produce the spasms, and it never disappoints.

Dr. W. H. Bentley published in May, 1881, a report of the efficacy of Jamaica dogwood in gonorrhœa. Though somewhat novel in its deductions, and in the rendition of a reason of action, yet it is not to be doubted that this subtle venereal disease is one that will yield to such an agent. I have not, however, employed the remedy in this disease, nor have I seen other reports of this kind.

Insanity
If there is an indirect curative of insanity in its inceptive stages, it is Jamaica dogwood. There will sometimes be presented to the attention of the practitioner cases where there

is a mental cause that wakes the patient to a fine maniacal frenzy. Then, if sleep can be obtained, the mind rests in decided calm with the physical powers, and when the patient awakes, the strength of insanity is broken. On the score that insanity is a physical disease, or of that nature, this hypnotic is an agent that cures. The patient awakes refreshed, and if the gods are kind he awakes sane. And the broken mind seems to appreciate it. Said one of these unfortunates, "Doctor, if you pity me, give me some more of your tincture of natural rest!" Probably the best effects are had in melancholia. It must, however, be had in mind that Jamaica dogwood, like any other potent narcotic, holds danger in its hand. *Insane*

Dr. Daniel, of Jackson, Miss., recommends half drachm doses of the fluid extract as an expectorant in a troublesome dry cough accompanied by dyspnœa.

Coca cures the opium-habit. Jamaica dogwood does more than this, it is a prophylactic of that disorder. By its use the baneful habit is forbidden the system. *Opium habit*

It is the custom of many physicians to give a full opiate at the first stage of labor to relieve the suffering. Higher skill will give Jamaica dogwood preference over the opiate. It relieves the pain as readily, hastens delivery indirectly, and leaves the patient in a much better condition than can be obtained through use of opium. *Labor*

In mild ailments, such as come up every day, and where it is the practice of all too many physicians to prescribe opium, the dogwood is a preferable agent. It bends the system, but it does not break. It may nauseate, but it never depraves.

If the new drug must be made substitutive of another agent, let it be of belladonna or some other of its class,—remedies given when certain systemic conditions render the use of opium inadvisable. The dogwood takes their place, and does their work better than they.

As an hypnotic, opium is not of greater worth. There are patients who must have sleep, else the system will wear itself weary. This drug is the agent to do the task. In cases of great mental excitement, it subdues the fevered mind, and soothes to sleep. In simple insomnia this mild anodyne assists hygienic measures. *Hypnotic*

I have seen the dogwood recommended in angina pectoris, but, although the affection is neuralgic, I am convinced that the remedy in question is but third-rate. Another claim made for the agent is that of its remedial action in intermittent fever. This is, however, but imperfectly authenticated, and is not of a probable nature.

Is Jamaica dogwood a remedy for inflammation? Dr. E. S. Richardson answers, that, in so far as it is curative of cholera morbus, it is. And it does cure cholera morbus. In Asiatic cholera its utility is marked in the early stages. In peritonitis it has a possibility before it, but the profession will be slow to substitute any remedy for opium. I am unable to find that it has been much used in the true inflammatory diseases, but by quieting the irritated nerves of the affected part it comes to render signal service.

The suggestion has been advanced, that it may be advantageous to combine opium and Jamaica dogwood. There may be virtues in such a combination, but we are not prepared for the trial till the newer agent is better known.

All through the hours when we are using this new remedy, we should remember that its use may become a habit. Piscidism may be as bad as alcoholism.

Scutellaria.

Synonyms—Skullcap, blue pimpernel.

Habitat—Indigenous to North America. It grows in waste meadows.

Medicinal Portion—The entire herb.

Botanical Details—A perennial of the order Labriatæ; Sexual System, Didynamia Gymnospermia. It grows erect to a height of two feet, and is much branched. Leaves ovate, opposite, and on long petioles; flowers pale-blue, small, and in long, lateral racemes.

Chemical Composition—No satisfactory analysis given.

Preparations—Infusion; dose *ad libitum* Fluid extract; dose ℥x-xx.

Physiological Properties—Fifteen years ago two claims were made for scutellaria. These were that it would cure hydro-

phobia and all forms of neuralgia. The first of these was abandoned. The other lives, although there are those who scoff at it. It has not a specific action, but is of potent worth. In epilepsy and chorea its use has been followed by favorable results.

Esculus Hippocastanum.

Synonyms—Horse chestnut, castanea equina, buckeye, pavina.

Habitat—This tree seems to have been a native of Turkey. It was introduced into France in 1615, and was a favorite ornamental tree in this country in the early years of the last century.

Botanical Details—Order, Hippocastanæ. Sex. Syst., Heptandria Monogynia. A tree often of sixty feet in height. Bark rough and brown; leaves on long foot-stalks, and compound of seven leaflets; leaflets spatulate, serrate, bright green; flowers in terminal racemes, having calyx pale green, corolla of five white petals marked punctate with yellow, stamens seven, supporting oblong, reddish anthers. Fruit prickly and roundish. Two seeds with testa tough and bronzed, and hilum of a greyish-white. Floral season, May.

Derivation of Name—The literal meaning of the botanical term, is "the food of horses."

Medicinal Portion—The bark gathered in the spring.

Chemical Composition—In the leaves have been found such principles as fraxin, quercitrin, and capulæsic acid. The fruit contains starch, a fixed oil, and esculin, (C_{60} , H_{33} , O_{37}). The composition of the bark is rich in tannin, and has also several other ingredients.

Antagonists—Vegetable alkaloids, mineral acids, and mineral salts, and alkalies.

Synergists—All tonics and bitters, with substances containing tannic acid.

Physiological Action—The properties are astringency and irritation. In the stomach it coagulates the pepsin, disordering digestion. It preserves its astringency throughout its passage of the alimentary canal.

Extemporized Preparations—The powder; dose 3 ij. Decoction; dose 3 j. Saturated tincture; dose 5-10 grs. Esculin; dose 10-20 grs.

Therapeutical Applications—In intermittents its utility is doubtful, but in paludal neuralgia it is a "substitute for quinine." Goss recommends it highly in hemorrhoids. It is valuable in the so-called "hepatic cough." Esculin seems to be the medicinal power, and it is probable that on it alone is reliance.

California Laurel.

Synonyms—Umbellaria Californica.

Habitat—The Pacific slope. It grows isolated.

Medicinal Portion—The leaves and bark.

Botanical Details—Not yet botanically located. It is an evergreen tree, varying in height from ten to sixty feet, according to age. Leaves elipto-lanceolate. Flowers in umbels, of a bright red color, appearing in January-March. Fruit a nut with a bright yellow rind.

Chemical Composition—A peculiar oil is abundant in the leaves, but a scientific analysis is wanting.

Physiological Action—The taste, as well as the odor, is aromatic, pungent, and characteristic. The odor has the effect of that of turpentine, causing irritation of the cerebro-spinal system.

Therapeutical Uses—The use of this drug in neuralgic headache, and in cerebro-spinal meningitis is followed by favorable results. In atonic diarrhœa and intestinal colic, it is said to possess curative properties. Applied externally it is a remedy for rheumatism and odontalgia. Dr. W. A. Hammond recommends it in neuralgia.

Menthol.

Historical Remarks—The U. S. Dispensatory has the following, "Berzelius states that at 8° below zero the oil (ol. menth. pip.) deposits small capillary crystals. These, which are called peppermint, camphor, or menthol, melt at 95°."

Long before Wood penned these lines, or Berzelius made the discovery quoted, menthol was used in China and Japan, either separately or as an ingredient of their po-ho-yo, or "pain-killer." Scarcely five years ago the drug took our English cousins by storm. It was originally imported, but now, both in England and America, it is manufactured.

It is a crystallizable body deposited from oil of peppermint by exposure to cold. Chemically it is the camphor or stereoptene of peppermint oil. It is soluble in ether, oils, and alcohol, but not in water. In some German price-lists I find that it is quoted as "oleum menthæ paponicum crystallisatum, price 62 marcs, (\$16) the kilo." There are three varieties of the Japanese oil, Mitcham, Western State, and Hotchkiss. The last named is of the best quality. Both Japanese and Chinese oils are richer and much stronger than the American or English; and it is strangely told that in Japan the Chinese oil is preferred, while in China the Japanese is most used. The menthæ piperita plant grows in Eastern Asia in greater luxuriance than any where else in the world, hence the secret of the superiority of the oil from it extracted. It is also said that this superiority is to be accounted for by the fact that the Japanese distil the menthæ arvensis with *M. piperita*. This peppermint is of a more acrid character than the *M. piperita*, but may prove to be the same botanically.

Antagonist—Capsicum.

Official Appearance—Menthol bears a strong resemblance to sulphate of magnesia, but has a powerful odor of peppermint. Indeed such is this resemblance that when menthol was first introduced into America some genuine incredulous Yankees set forth that it was but "Epsom salts flavored with peppermint." A specimen before me as I write resembles the salt of magnesia to some extent, but is more silky to the feel, and the crystals are more capillary.

Physiological Properties—The same as ol. menth. pip.

Therapeutical Action—For neuralgia menthol is a curative. It is used for sciatica, intercostal neuralgia, cephalalgia, odontalgia. It is painted in solution (1-x) over the painful point. Dose of 1-10-1-6 gr. steadies the heart. Externally it is purely anæsthetic. Its action is speedy.

Menthol is a homologue of thymol, and an antiseptic. It is used in addition to purposes named above, for rheumatism, gout, and all neuralgic disorders.

Sabal Serrulata.

Synonyms—Saw palmetto, chamærops serratula.

Habitat—Seacoast and islands of Southeastern States.

Botanical Description—Stem creeping and branching; leaves fan-shaped, serrate, petiole; spadix tomentose; petals but slightly joined; style slender; drupe ovoid. A common palmetto shrub growing in "scrub forests."

Chemistry—Two oils have been determined, but other analysis is lacking.

Medicinal Portion—The berries (drupes.)

Physiological Action—Taste acrid, pungent, and butyraceous. The properties are nutritive, sedative, expectorant, pseudo-narcotic, diuretic.

Therapeutical Uses—Sabal serrulata is remedial of neuralgia and allied disorders. It is beneficial of asthma, laryngeal phthisis, bronchitis, nasal catarrh, whooping cough, and hemorrhage, having a local sedative action, and promoting nutrition.

Preparation—Fluid extract; dose ʒj. Saccharated powder; dose ʒss. (Unofficial.)

Tonga.

Botanical Source—Supposed to be derived from the raphisodophora vitiensis. Ryder states that he does not know its botanical relations but considers that it consists of at least two plants.

Derivation of Name—Mr. Ryder, a gentleman residing in the Fiji Islands, introduced the remedy to the profession, and invented its name. The natives of the Islands call it the "neuralgia medicine."

Habitat—Fiji Islands.

Official Appearance—Tonga comes to the market in small

loose bundles containing a mass of leaf, bark, and woody fibre.

Historical Details—The Fijians have used this remedy for centuries. Only a short time ago Ryder introduced it into England, where it was tried with success by two such able therapeutists as Drs. Ringer and Murrell. There are two stories extant as to the giving of tonga to the English profession. Ryder states that he received it from a European who had married a Fijian chief's daughter. O'Neill however says that a Mr. Veccey of Lau F. I., who had married a half-caste Tongan wife, was cured of neuralgia by a remedy obtained for him by her, and that actuated by a desire to speculate, he handed the medicine to Mr. Ryder, requesting that gentleman to seek analysis. Mrs. Veccey, according to O'Neill, named the barks "tonga," and every effort is used to keep their botanical composition secret.

Chemical Composition—German chemists have demonstrated the existence of an alkaloid, naming it tongina.

Preparations—The Fijians steep the fastened bundle in an ounce of water twenty minutes, then squeezing out the liquid take a drachm *ter die*. The bundle may be several times used. Fluid extract (1.); dose, 3j. Fluid extract (2.); dose, ʒxx-xxx.

Essential Qualities—Samples of tonga consists of leaf, fibre, and bark. The first is green, fine, and bitter; the second is loose, chopped, greyish-brown, of a urinous taste, and probably derived from the root; the bark is in small pieces, of a brownish color, sweet, and negative to alkaloid re-agents.

Physiological Action—We as yet know very little of the qualities of tonga. After exhibition there is usually manifested a disposition to sleep, but the drug cannot lay lawful claim to the name of narcotic. Overdoses do not produce toxic effects. The pupil is not affected, and topical application fails to touch the vision. The secretions are neither increased or lessened, and the sensation of the skin supplied by the fifth nerve is unchanged. Bader states that a drop of the alcoholic extract in the healthy eye increases the power of accommodation, and acts well in asthenopia. There is no denial of optical effect, but it is not yet denominate.

Therapeutical Applications—Tonga is a remedy for neuralgia, simple, complicated, or but slightly apparent. Where the neural element leads, there tonga acts remedial. In looking over the literature of the subject I find instanced neuralgia of the infra- and supra-orbital branches of the fifth nerve, odontalgia, neuralgia of the occipital, of the first branch of the fifth, of the second and third branches, of the orbital, and other nerves. Bader reports favorably on its use in rheumatic iritis, asthenopia, and neuralgia of the eye. In nephritic disorders, characterized by neuralgic pains, and in cephalalgia, it is a remedy to be commended. I am not prepared to name tonga a curative of sciatica; and yet I think that the time will come when it will prove of more or less benefit.

OBESITY.

- | | |
|---|-----------------------|
| 1. <i>Fucus Vesiculosus</i> . (See note.) | 3. Bautingism. |
| 2. Arsenic. | 4. Dietetic measures. |

DESCRIPTIVE NOTES.

Fucus Vesiculosus.

Synonyms—Bladder wrack, sea wrack.

Preparations—Fl. ext.; dose f 3 ss inc. to f 5 j.

Botany—Nat. Ord. Algae, perennial, fronds, flat, $\frac{1}{4}$ ft. long, $\frac{1}{2}$ – $1\frac{1}{2}$ in. broad; vesicles, smooth, hollow and villose within; fruit roundish, muciparous; root woody.

Chemical Composition—Iodine, soda, etc., are ingredients.

Therapeutical Applications—By virtue of its power to diminish surplus and abnormal fat, fucus vesiculosus has come to be an anti-fat remedy of great merit. No functional derangement of the system or of the stomach follows, and some wonderful cures are reported.

ŒDEMA.

- | | |
|-----------------------|--------------------------------------|
| 1. <i>Jaborandi</i> . | 4. Sustaining and dietetic measures. |
| 2. Arsenic. | 5. Digitalis, |
| 3. Potassium salts. | 6. Urino-genital remedies, |
-

ŒDEMA GLOTTIDIS.

- | | |
|-------------------|-----------------|
| 1. Scarification. | 3. Tracheotomy. |
| 2. Sanguinaria. | |
-

ONYCHIA.

- | | |
|------------------------|---------------------|
| 1. Surgical treatment. | 3. Chloral. |
| 2. Iodoform. | 4. Nitrate of lead. |
-

ORCHITIS.

- | | |
|-----------------------|--|
| 1. <i>Hamamelis</i> . | 4. <i>Pulsatilla</i> . |
| 2. Ammonium chloride. | 5. Tincture of iodine. (<i>locally</i> .) |
| 3. Ice. | 6. Oleate of mercury. (<i>locally</i> .) |
-

OZÆNA.

- | | |
|--------------------------------|----------------------------|
| 1. Argenti nitras. | 6. Iodide of arsenic. |
| 2. Iodine inhalations. | 7. Bromine inhalations. |
| 3. Bichromate of potash. | 8. Permanganate of potash. |
| 4. Nitric acid; carbolic acid. | 9. Nitrate of silver. |
| 5. Muriate of gold. | 10. Hydrastis. |

OXYTOCICS.

1. *Ergot.*
2. *Mistletoe.*
3. *Ustilago maidis.* (See note.)

DESCRIPTIVE NOTES.

Ustilago Maidis.

Synonyms—*Ustilago maydis*, corn smut, ergot of maize.

Position—Unofficial.

Preparations—Fluid extract; dose gtt. x-xx.

Habitat—Wherever Indian corn grows.

General Botany—*Ustilago maidis* is a fungus, appearing upon the stem and germs of the growing ears of corn. When dry, it is a black dusty powder resembling soot.

Chemical Composition—*Ustilago maidis* contains secalin, ergotin, a fixed oil, a resin, pectin, gluten, and a saccharine substance.

Physiological Properties—It having been noticed that the so-called "smutty corn" produces abortion in cows, investigation led to the discovery that it is indeed an oxytocic. It is primarily a local irritant. It readily diffuses into the blood, slows the cardiac action, and contracts the arterioles. Like ergot, in overdoses and after long-continued administration, it produces toxic symptoms, or in other words, ergotism.

Antagonists—Same as ergot.

Synergists—Ergot and remedies synergistic to it.

Therapeutical Applications—Equable doses of *ustilago maidis* will cause as perfect a contraction of the blood vessels as will ergot. This is demonstrated by its use in hemorrhoids, where it readily arrests the hemorrhage. There is always an indication for its use if a hæmorrhagic diathesis presents. Thus, it is employed for hæmoptysis, various internal hæmorrhages, epistaxis, menorrhagia and metrorrhagia. It relieves post-partum hæmorrhage as few other internal remedies can relieve. I esteem it as superior to ergot in action on passive hæmorrhage, and as excellent in effect on active hæmorrhage, if used in time.

Another use to which this drug is put, is in the treatment

Passive
Hæmorrhage

of cutaneous diseases, for which it is very efficient. For spermatorrhœa it may be prescribed in the same class of cases to which we apply ergot. Combined with damiana it is the more valuable.

Ustilago maidis is in every sense and obligation of the word a substitute for ergot as an oxytocic, with this difference: The uterine contraction from ergot is tonic, but from ustilago maidis it is regularly intermittent. On this account the latter drug is destined to be more certainly serviceable, as causing less pain to the mother, and less danger to both mother and child. It promotes the uterine contraction, which become naturally rhythmical. The indications for administration are the same as for ergot. All who have used it, recommend the drug. It never fails. Parturition is made more easy; post-partum hæmorrhage is at once relieved; and, if the placenta is retained, it can be removed by using the ustilago. There is no one of the new remedies that I can endorse more heartily than I do ustilago maidis. It is the prince-royal of oxytocics, preferable to ergot, to be recommended without reservation, and deserving of the name of a perfect remedy.

We look to the rose for its flowers, and forget or despise any other beauty or virtue that it may have. So of ustilago maidis. Content with its well-earned and firmly-founded reputation as a parturient and anti-hæmorrhagic, we dwarf its other applications. To some of these I have referred, others I will allude to.

In pneumonia, ustilago relieves by depriving the sputa of their morbid rusty color, thus promoting increase of strength. For apoplexy, ergot with bromides is a favorite remedy of mine. Ustilago may take the place of ergot, but, frankly, it is no better, if as good. To relieve cerebral congestions it has been used in the Northern Insane Hospital with most satisfactory results. Dr. J. T. Everett has narrated particulars of the successful treatment of uterine fibroids by ustilago. Goss says, "it has cured irritable testes, chronic induration," etc.

In conclusion, I am led to hope that ustilago maidis may take the place of ergot of rye, doing what it does, and being what it is.

General Remarks—The literature of ustilago maidis is not

extensive. In 1709, Planer wrote of wheat smut. Later, Tillet, Tessier and others wrote on the same subject, all holding that "smut" is the diseased grain. Jussieu and Linnæus refuted this theory, asserting for the first time that the organism was fungoid. In 1837, Leveille gave a clear account of the structure and natural history of corn smut. In 1846, M. M. Tulasne published a classical monograph on the *Uredineæ et Ustilagineæ*, describing their growth, appearance, germination and origin. Later, Waldheim classified the species, and others wrote upon it, none, however, referring to its medicinal virtues. In 1866 it was introduced into medical practice in this country. Fifteen years' time have served to bring it prominently to the notice of the profession.

The microscopical characters of *ustilago maidis* are beautiful and interesting, but are not pertinent here. For a very readable paper on this branch of the subject I refer the reader to an essay by Prof. V. M. Spalding, in the *Therapeutic Gazette*, June, 1881.

OXALURIA.

1. Nitro-muriatic acid.

PARALYSIS.

- | | |
|---------------------------|-------------------------------|
| 1. <i>Hoang-Nan</i> . | 11. Cod-liver oil and iron. |
| 2. Conium. | 12. Phosphorus. |
| 5. Belladonna. | 13. Hyoscyamia. |
| 4. Gelsemium. | 14. Physostigma. |
| 5. Electricity. | 15. <i>Ajuga chamæpitys</i> . |
| 6. <i>Urtica dioica</i> . | 16. Iodide of potassium. |
| 7. Strychnia. | 17. Mercury. |
| 8. Ergota. | 18. Friction. |
| 9. <i>Mistletoe</i> . | 19. Quinia. |
| 10. Choral. | 20. Phosphorus. |

PERITONITIS.

- | | |
|--|-----------------------|
| 1. Opium. | 6. Leeches ; cupping. |
| 2. Lactucarium. | 7. Aconite. |
| 3. <i>Jamaica Dogwood</i> . (<i>vide neuralgia</i> .) | 8. Colocynth. |
| 4. Iron and quinine. | 9. Mercury. |
| 5. Rubefacients ; sinapisms. | 10. Rest. |

PERTUSSIS.

- | | |
|--|--|
| 1. Belladonna. | 17. Alum. |
| 2. <i>Duboisia</i> . | 18. <i>Ranunculus acris</i> . |
| 3. <i>Pulsatilla</i> . (<i>vide Amaurosis</i>) | 19. Conium. |
| 4. <i>Jamaica dogwood</i> . | 20. Stramonium. |
| 5. Castanea. | 21. Hyoscyamus. |
| 6. <i>Sabal serrulata</i> . | 22. Atropia and cordea. |
| 7. Monobromide of camphor. | 23. Quinia. |
| 8. Chloral. | 23. Tannic acid. |
| 9. Assafoetida. | 24. Ergot. |
| 10. Gelsemium. | 25. Chloroform. |
| 11. Hydrocyanic acid. | 26. Coal-gas. |
| 12. Lactucarium, | 27. <i>Pulsatilla</i> . |
| 13. Bromide of potassium. | 28. <i>Rosolis</i> . |
| 14. Carbonate of potash. | 29. <i>Yerba santa</i> . |
| 15. Ipecacuanha. | 30. Carbazotate of ammonia. |
| 16. Cochineal. | 31. <i>Dracontium</i> . (<i>See note</i> .) |

DESCRIPTIVE NOTES.

Dracontium.

Synonyms—Skunk or swamp cabbage, etc.

Habitat—Swampy lands of Northern States.

Medicinal Portion—The root.

Botanical Details—Order, Araceæ ; Sex. Syst., Tetandria Monogynia. Rhizoma truncate, with fibres. Leaves long cordate, numerous, appearing after the variegated, purplish flowers. Spathe subsessile. Fruit fleshy, with globose pisiform seeds.

Official Appearance—Cylindrical truncated cones, two inches long by one thick, white within, brown externally. Virtues are lost by long keeping.

Physiological Properties—Taste and smell are acrid, fœtid, and peculiar. It is antispasmodic, stimulant, emetic, and narcotic.

Therapeutical Applications—The reputation of dracontium for cure of pertussis is well-earned, and sustained. Ten grains of the powder *ter die* is very efficacious. It is also useful in asthma, catarrh, and any spasmodic disorder. In hysteria its use is attended with advantage. Heintzelman recommends it in consumption.

PLEURITIS.

FIRST STAGE.

- | | |
|-------------|------------------------|
| 1. Opium. | 4. Sinapisms. |
| 2. Salines. | 5. Cold baths. |
| 3. Aconite. | 6. Counter-irritation. |

SECOND STAGE.

- | | |
|--|---------------------------------|
| 7. Diaphoretics. | 11. Iodine, (<i>locally</i> .) |
| 8. Diuretics. | 12. Diet ; wine ; tonics. |
| 9. Opium ; salines ; counter-irritation. | 13. Thoracentesis. |
| 10. Squill and digitalis. | |

THIRD STAGE.

- | | |
|------------------|------------------------|
| 14. Exercise. | 16. <i>Jaborandi</i> . |
| 15. Diet ; wine. | |

PNEUMONIA.

- | | |
|-------------------------------------|------------------------------|
| 1. Depletion, in some cases. | 11. Sulphur. |
| 2. Salines. | 12. Wet pack. |
| 3. Aconite, and like remedies. | 13. Carbonate of ammonia. |
| 4. Opium. | 14. Acetate of copper. |
| 5. Counter-irritation. | 15. Turpentine stupor. |
| 6. Cold baths. | 16. <i>Jaborandi</i> . |
| 7. Tartar emetic. | 17. <i>Quebracho</i> . |
| 8. Iodine, (<i>applications</i> .) | 18. <i>Yerba Santa</i> . |
| 9. Tonics ; stimulants ; diet. | 19. <i>Ustilago Maidis</i> . |
| 10. Phosphorus. | |

PULMONARY PHTHISIS.

[REMARKS—Like all chronic diseases, phthisis is honored by a multitude of remedies, some good, some bad, some neutral. From the many we select the following.]

- | | |
|--|--|
| 1. Hygienic, dietetic and sustaining measures. | 11. <i>Gonania</i> . |
| 2. Cod-liver oil. | 12. Proper exercise, ventilation, clothing and recreation. |
| 3. <i>Blood</i> . | 13. Sponge baths. |
| 3. <i>Chaulmoogra oil</i> . | 14. Chlorate of potassa. |
| 4. Malt. | 15. Caoutchouc in turpentine. |
| 5. Alcohol; milk; meat; iron. | 16. Opium, hyoscyamia, etc. |
| 6. Mineral acids. | 17. Ether. |
| 7. Arsenic. | 18. <i>Coca</i> . |
| 8. Cinchona. | 19. <i>Quebracho</i> . |
| 9. Atropia. | 20. <i>Cheken</i> . |
| 10. Wild cherry bark. | |
-

PRURITUS VULVÆ.

- | | |
|--|----------------------|
| 1. Carbonate and cyanide of potassium. | 5. Hydrocyanic acid. |
| 2. Calomel ointment. | 6. Sulphurous acid. |
| 3. Tobacco. | 7. Chloral. |
| 4. Nitrate silver. | 8. Lac sulphur. |
-

PROSTATE, HYPERTROPHY OF.

- | | |
|-----------------------|-------------------------|
| 1. Ergot. | 4. Benzoate of ammonia. |
| 2. Iodine injections. | 5. <i>Damiana</i> . |
| 3. Alkalies. | |
-

PYÆMIA.

- | | |
|------------|---------------------------------|
| 1. Malt. | 4. Carbolic et salicylic acids. |
| 2. Quinia. | 5. Turpentine. |
| 3. Iron. | |

PYROSIS.

- | | |
|-------------------------------|-----------------------|
| 1. Bismuth. | 4. Mineral acids. |
| 2. Manganese oxide. | 5. Strychnia. |
| 3. Tannic or sulphurous acid. | 6. Nitrate of silver. |
-

RENAL CALCULI.

- | | |
|-------------------------|--|
| 1. <i>Hydrangea</i> . | 5. <i>Epigea repens</i> . (<i>vide ascites</i> .) |
| 2. Salts of potassium. | 6. Corn silk. (<i>See note</i> .) |
| 3. Alkalies. | 7. <i>Agrimonia eupatoria</i> . |
| 4. Benzoate of ammonia. | 8. <i>Alisma plantago</i> . |
-

DESCRIPTIVE NOTES.

Hydrangea.

Synonyms—Seven-barks, *H. arborescens*, "Bissum."

Habitat—Europe and America. In shady places.

Medicinal Portion—The bark.

Preparations—Unofficial. Fluid extract, syrup and decoction.

Botanical Details—Nat. Ord., Hydrangeæ. A shrub six feet high, with ovate, serrated leaves, six inches long. The flowers come in July. They are arranged in fastigate cymes, and are very pretty. The bark is rough, and lies in seven layers of different colors.

Chemical Composition—The analysis by Laidley showed the presence of albumen, starch, resin, gum, and several salts.

Physiological Action—A multitude of virtues have been claimed for this humble herb. It was nominated in 1850 as a candidate for the position of antilithic, and occupies it still. Acting especially upon the secretions, it has come to be cathartic, diuretic, diaphoretic, sialagogue, and expectorant. Naturally it has become a tonic and an alterative, being just cathartic enough to be perfectly such.

Its taste is pleasantly aromatic and spicy. In an overdose it occasions vertigo, and great muscular weakness. Elimination by all the secretions.

Therapeutical Applications—For thirty years hydrangea has been a remedy for calculi. It is a solvent of smaller calculi of no mean powers, and acts as if by magic. In biliary calculi causing jaundice and other hepatic disorders, hydrangea promotes a cure. For rheumatism, dyspepsia, and cystitis, it is a remedy of repute among the German practitioners. Constipation yields to the use of hydrangea, and by virtue of diuresis, ascites is cured. Hydrangea is a "blood purifier," and its free elimination constitutes it curative of cutaneous diseases, and as valuable in all strumous disorders. Dr. Henning has used it in gleet, hæmaturia, and albuminuria with fine results.

Corn Silk.

Synonym and Botanical Relation—Stigmata of maize.

Physiological Properties—This article is represented as a diuretic and demulcent in catarrh of the bladder and kidneys. It is also a local anæsthetic.

Therapeutical Applications—Corn silk comes to us as a therapeutic agent by introduction of French *savants*. Castan uses it for gravel and nephritic colic. Denucé recommends it in vesical catarrh, and M. Paul is decided in belief that it is a cure for dropsy. Dezotteaux speaks of it as remedial of dysuria and retention of urine. André employs it for chronic cystitis. Other uses are for lithiasis complicated with dysuria, and hæmaturia.

The profession in America have as yet given the remedy but little trial. It certainly promises well, and merits attention. A fluid extract is prepared, of which the dose is one to two fluidrachms.

RACHITIS.

- | | |
|----------------------|-------------------------|
| 1. Phosphites. | 3. Carbonate of potash. |
| 2. Iron and quinine. | 4. Alimentation. |

RINGWORM.

- | | |
|-------------|---|
| 1. Arsenic. | 2. Nitrate of silver, (<i>locally</i>). |
|-------------|---|
-

ROSEOLA.

- | | |
|--------------------|-----------------------|
| 1. Oil inunctions. | 2. Hygienic measures. |
|--------------------|-----------------------|
-

RHEUMATIC ARTHRITIS.

- | | |
|-------------------|--------------------|
| 1. Colchicum. | 4. Arsenic. |
| 2. Cod-liver oil. | 5. <i>Manacé</i> . |
| 3. Iodides. | 6. Lithia. |
-

RHEUMATISM.

- | | |
|------------------------------------|--|
| 1. Alkalies. | 24. Iodine. |
| 2. Salicylic acid and salicin. | 25. Cimicifuga. |
| 3. Dietetic and hygienic measures. | 26. Blisters; counter-irritation. |
| 4. Colchicum. (!) | 27. Cupping. |
| 5. Opium. | 28. Guarana. |
| 6. Quinine. | 29. Ipecacuanha. |
| 7. Veratrum viride. | 30. Lemon juice. |
| 8. Aconite. | 31. Benzoic acid. |
| 9. Digitalis. | 32. Sulphur. |
| 10. Mercury. | 33. <i>Pulsatilla</i> . (<i>Vide amaurosis.</i>) |
| 11. Nitrate of potassa. | 34. Kalmia. |
| 12. Tonics. | 35. Iodide of potassium. (<i>Syph. Rh.</i>) |
| 13. Guaiacum. | 36. <i>Horse radish</i> . (<i>See note.</i>) |
| 14. Aletris. | 37. <i>Manacé</i> . (<i>See note.</i>) |
| 15. Sulphur. | 38. <i>Bearsfoot</i> . (<i>See note.</i>) |
| 16. Arsenic. | 39. <i>Rhodendron maximum</i> . (<i>See note.</i>) |
| 17. Iodide of potassium. | 40. <i>Ajuga chamaepitys</i> . |
| 18. Turkish bath. | 41. <i>Jaborandi</i> . |
| 19. Cod-liver oil. | 42. <i>Urtica dioica</i> . |
| 20. Xanthoxylum. | 43. Petroleum. |
| 21. Bromide and carb ammonium. | 44. Burdock. |
| 22. Trimethyamime. | 45. <i>Chaulmoogra oil</i> . |
| 23. Lithium salts. | |

DESCRIPTIVE NOTES.

Horse Radish.

Synonyms—Cochlearia armoracia, harsh radish.

Habitat—Western Europe. Semi-neutralized in United States.

Botanical Details—Order, Brassicaceæ (?) Sexual System, Tetradynamica Siliculosa. Root perennial, terete, fleshy-white. Stem 2-3 feet high, smooth. Leaves lanceolate, waved, pinnatifid. Flowers white, corymbose, pod small, bi-cellular; seeds four to six.

Essential Principles—A volatile oil of an acrid character, resin, sugar, gum, starch, etc.

Physiological Action—Horse-radish possesses stimulant qualities, promoting the secretions, and influencing the circulation. It promotes the appetite, and thus invigorates digestion. Externally it is rubefacient.

Therapeutical Applications—Horse-radish has some reputation as a remedy for rheumatism, acting as a stimulant; but it is not a certain remedy. A syrup used in bronchitis obviates hoarseness. In the treatment of general debility the root may be eaten *ad libitum*.

Officinal Preparation—Sp. Armorac. comp.

Manaca.

Synonym—Franciscea Uniflora.

Habitat—Equatorial America.

Position—Non-officinal. Offic. in Braz. Disp.

Preparations—Fl. ext.; dose gtt. v-xx.

Synergists—Iodide of potassium is admirably synergistic.

Botanical Details—Order, Scrophularineæ. A shrub, with alternate leaves, of oblong-acuminate shape, and having solitary terminal flowers of a narcissus-like odor.

Physiological Properties—The British dispensatory describes manacá as a powerful antisyphilitic, purgative, emmenagogue, diuretic, and resolvent. In large doses it has a toxic effect. It excites the action of the lymphatics, eliminates morbid matter from the skin and kidneys, and is regarded as a specific anti-rheumatic.

Medicinal Portion—The root. Some use the entire plant.

Chemical Composition—A satisfactory analysis has not yet been published.

Therapeutical Applications—Manacá by virtue of its specific action on poisonous matter in the blood, becomes a specific in serpent-bites, and is also valued for the same reason for rheumatism, uraemia, syphilis, and other blood poisons. In regard to its use for rheumatism we may say that a real remedy for that disease deserves our highest consideration; and if manacá is such a remedy it is one justified for introduction. Among several who have borne testimony to its value are Egan, Kilmer, and others, all agreeing that it is a medicine deserving of investigation. In its use for rheumatic arthritis it is employed with remarkable success.

We need a first-class eliminant, and in manacá it is to be hoped we find the desideratum. It deserves trial, and after trial demands our judgment. It may be judged gently or harshly, but still it has its own merits.

Bearsfoot.

Synonyms—Polymnia uvedalia.

Habitat—Shady places; Europe.

Position—Unofficinal.

Preparations—Fl. ext. Solid ext.; dose, grs. $\frac{1}{4}$ – $\frac{1}{2}$.

Medicinal Portion—The root.

Physiological Action—Bearsfoot, externally applied, is discutient. Internally administered, it is said to be laxative, stimulant, tonic, and secernant. It increases nutrition.

Therapeutical Applications—Bearsfoot is a "remedy for rheumatism," but lacks any honor. For scrofula it is sometimes prescribed.

An ointment prepared as follows:—℞. Fl. ext. bearsfoot, $\frac{1}{2}$ lb., hog's lard 1 lb., thoroughly melted together,—is used for ague cake, mammitis, lumbago, white swelling, and all ordinary "pains and aches," giving prompt relief, discussing inflammation, and acting specifically. It should be used freely, and well rubbed, two or three times daily.

Rhododendron Maximum.

Synonyms—Great laurel, American rosebay.

Habitat—The Alleghanies.

Preparations—Fl. ext.; dose, 10–15 gtt.

Medicinal Portion—The leaves.

Botanical Details—Order, Ericaceæ. Floral season, July. This shrub grows 6–20 feet high, with lanceolate, leathery leaves, 4–10 inches long; flowers yellowish-pink.

Physiological Action—Expectorant, stimulant, astringent.

Therapeutical Applications—Great laurel is a remedy for gout and rheumatism with the American Indians, and is indeed remedial in a certain proportion of cases. Dr. Mulholand recommends it for obstinate cough, and with others it has always been successful. Still it is a new remedy, one little known, and not altogether certain in its workings. It will come to us better known by and by. Now it is unproven.

RUBEOLA.

- | | |
|---|---|
| 1. Hygienic, dietetic, and palliative measures. | 6. Salines. |
| 2. Quinia. | 7. <i>Cascara sagrada</i> . (<i>vide constipation</i> .) |
| 3. <i>Faborandi</i> . (<i>vide ascites</i> .) | 8. Ipecac or squill. |
| 4. Carbonate of ammonia. | 9. Iron. |
| 5. Aconite. | 10. Camphor. |
| | 11. <i>Pulsatilla</i> . (<i>vide amaurosis</i> .) |

SCARLATINA.

- | | |
|--|---|
| 1. Hygienic, dietetic and palliative measures. | 8 Chlorinated soda solution. (<i>Anti-septic</i> .) |
| 2. Iron and quinine. | 9. Permanganate of potash. (<i>Anti-septic</i> .) |
| 3. Alcohol. | 10. Topical, counter irritative and emollient agents. |
| 4. Laxatives or enemata. | 11. <i>Cascara sagrada</i> . |
| 5. Chlorate of potassa. | 12. Inunction. |
| 6. Cold baths. (?) | 13. Ice and ice-bags. |
| 7. Alum, tannin, and borate of soda. (<i>Astringents</i> .) | |

- | | |
|---|-----------------------------------|
| 14. Capsicum. | 19. Carb. ammonia. |
| 15. Sulph. zinc; muriatic acid, and nitrate silver. (<i>Sore throat</i> .) | 20. <i>Ailanthus glandulosa</i> . |
| 16. Aconite. | 20. <i>Urtica dioica</i> . |
| 17. Belladonna. | 22. <i>Eupatorium</i> . |
| 18. Digitalis. | 23. <i>Duboisia</i> . |

SERPENT BITES.

- | | |
|--|--|
| 1. <i>Simaba cedron</i> . (<i>See note</i> .) | 3. <i>Mikania Guaco</i> . (<i>See note</i> .) |
| 2. <i>Hoang-nan</i> . | |

DESCRIPTIVE NOTES.

Simaba Cedron.

Habitat—The American tropical countries.

Medicinal Portion—The seeds.

Preparations—(Unofficial.) Fluid extract; dose ℥j.-viiij.

Botanical Details—A tree of the family of the Simarubaceæ. It rarely exceeds a diameter of ten inches, has a beautifully erect and umbellate form, with large, pinnate leaves, and pale-brown racemes of flowers. The fruit is a large solitary drupe, and contains one bean-like seed.

Official Appearance—The dried seed is still in its flat, yellowish-ash capsule, and is about an inch and a half long, ten lines broad, and six thick. It is convex on one side, nearly flat on the other, loose in its capsule, and very hard.

Chemical Composition—Lowry isolated a bitter crystalline substance which he called cedrin, and which is, no doubt, the active principle.

Family Relations—Allied to quassia.

Bibliography—Mentioned in *History of Buccancers* 1699, *Med. Times and Gazette* 1852, *Pharm. Jour.*, xij. 63, and other journals.

Physiological Action—Cedron rapidly diffuses into the blood. Its effects are expended in the nervous system, and its princi-

pal action is that of a cerebral sedative. Its properties are antispasmodic, and to a greater or lesser degree, anti-periodic.

Antagonists—Camphor, valerian, assafoetida.

Synergists—Alcohol, ether, chloral, opium, etc.

Therapeutical Applications—This remedy was first brought to notice as useful as a remedy for serpent bites, which it is said to cure as if by miracle. It kills the poison of the most venomous reptiles, and is said to render the bite of the rabid dog of none effect.

Gradually it came to be reputed an agent to render innoxious the specific poison of fever, and stepped into use in the treatment of intermittent fever. St. Pere and Quesnel pronounce it of as great a value as quinine. It increases the pulse-rate, but reduces its frequency. Dr. Thompson, of London, found cedron useful in gout. Guier has used it in colic, and facial neuralgia.

For serpent bites this remedy is as near a specific as can be. The administration is in 6-minim doses, with free external application. It is also valuable for stings of insects.

Mikania Guaco.

Synonyms—Guaco, huaco.

Habitat—South America.

Position—Unofficial.

Preparations—Fl. ext.; dose, 3 ss-j.

Medicinal Portion—The leaves.

Botanical Details—Humboldt speaks of guaco as of the order Compositæ, but the genus Mikania are members of the Asteraceæ. Stems twining; branches sulcate; leaves ovate and rough; flowers in axillary corymbs.

Physiological Properties—Of a bitter taste and a disagreeable odor, guaco is not a palatable medicine. It is new for the purposes of an astringent, counter-poison, etc.

Therapeutical Applications—The Indians of South America regard and employ guaco as a remedy for serpent and insect bites, and it is almost a specific. Its astringency renders it remedial of intestinal disorders,—cholera, diarrhœa, etc. For

gout and rheumatism it is said to possess curative properties. It has a limited reputation as an anthelmintic, and recently has been claimed as a febrifuge.

SCROFULA.

- | | |
|---------------------------|---------------------------------|
| 1. Iron: | 9. <i>Agrimonia eupatoria</i> . |
| 2. Iodides. | 10. <i>Asclepias syriaca</i> . |
| 3. Fats. | 11. <i>Juglans</i> . |
| 4. Phosphates. | 12. <i>Cascara sagrada</i> . |
| 5. Grape cure. | 13. Burdock. |
| 6. Stillingia. | 14. <i>Hoang-nan</i> . |
| 7. Sulphur. | 15. <i>Bearsfoot</i> . |
| 8. <i>Rumex crispus</i> . | 16. <i>Figwort</i> . |

DESCRIPTIVE NOTES.

Figwort.

Synonyms—*Scrophularia nodosa*, heal-all, Holmesweed.

Habitat—Shady places; Europe.

Medicinal Portion—The leaves.

Preparations—Infusion. Fluid extract.

Botanical Details—Ord., *Scrophulariaceæ*. Root perennial, tuberous, and knotty; stem herbaceous, 2-3 feet high; leaves opposite, dentate, ovate-cordate; flowers small, purple, and terminal.

Chemical Composition—There are two proximate principles, *scrophularin* and *scrophularosmin*.

Physiological Properties—Externally repellent. Tonic, anodyne, diuretic.

Therapeutical Applications—Is figwort a remedy for scrofula? I think that it is. Its utility may not always be marked, but it is nevertheless a remedy. As an ointment to piles, cutaneous eruptions, and ulcers, figwort is sometimes used.

It is but just to say that there are several makes of the unofficial fluid extract, and that some of these are absolutely worthless.

SCIATICA.

- | | |
|------------------------|------------------------|
| 1. Opium. | 7. Guaiacum. |
| 2. Gelsemium. | 8. Muriate of ammonia. |
| 3. Electricity. | 9. Aconite. |
| 4. Counter-irritation. | 10. Colocynth. |
| 5. Atropia. | 11. <i>Tonga</i> . |
| 6. Iodides. | |

SPRAINS.

1. Arnica. (*Locally*.)

SPLEEN, DISEASES OF.

- | | |
|---------------------------------|------------------------------------|
| 1. Quinia. | 5. Tr. iodine. (<i>locally</i> .) |
| 2. <i>Ceanothus</i> . | 6. Iodide of iron, and of ammonia. |
| 3. <i>Grindelia squarrosa</i> . | 7. <i>Caper-bush</i> . |
| 4. Iron. | 8. <i>Euonymus</i> . |

SEA SICKNESS.

- | | |
|--|------------------------|
| 1. Chloral. | 5. Columbo. |
| 2. Atropia, (<i>hypodermically</i>). | 6. Ice-bag. |
| 3. Chloroform. | 7. Counter-irritation. |
| 5. Champagne. | |

SICK HEADACHE.

- | | |
|--|---------------------------------|
| 1. <i>Guarana</i> . (<i>See note</i> .) | 10. Cold water. |
| 2. Nux vomica. | 11. Chloral. |
| 3. Bromides. | 12. Valerianate of zinc. |
| 4. Phosphate of sodium. | 13. Caffein. |
| 5. <i>Eucalyptus</i> . | 14. Opium. |
| 6. Remedies for acidity of stomach. | 15. Jalap. |
| 7. Quinia. | 16. <i>Cascara cordial</i> . |
| 8. Monobromate of camphor. | 17. <i>Sabbatia stellaris</i> . |
| 9. Chloroform. | |

DESCRIPTIVE NOTES.

Guarana.

Synonyms—Paullinia sorbilis.

Habitat—Brazil.

Derivation—Guarana is prepared from the seeds.

Botany—Nat. Ord., Octandria Trigynia. The seeds are lenticular in a three-celled coriaceous capsule.

Chemistry—Guarana abounds in caffein or guaranin, and also contains gum, starch, fixed oils, etc.

Physiological Nature—Guarana is a tonic to the nervous system by virtue of the presence of caffein. It also has a peculiar action on the mucous membranes.

Therapeutical Applications—There is no remedy for sick headache of equal value to guarana. Its principle use is there. It calms the irritated mucous membrane of the stomach and intestines, restores its tone, and removes all pain. I give 15-25 gtt. every fifteen minutes until the patient is relieved, and it always cures.

Its peculiar calmative effect on the irritated mucous surfaces give the remedy value in bowel complaints. Indeed, the Indians of Brazil consider it a specific. Diarrhœa, and dysentery, cholera morbus and all similar disorders, are speedily relieved.

Ritchie recommends guarana for urinary irritation. Rawson commends it in rheumatism and lumbago.

The Brazilians use guarana as a diet drink. In overdoses it is a poison, and there is a difference in the way constitutions are affected by it.

Other uses are its applications in the treatment of vomiting of dentition, (dose 10-20 gtt.), headache of dyspepsia, neuralgic headache, and generally as a neurotic.

The profession cannot well do without the remedy, and the day is coming, and now is, when guarana shall be esteemed the equal of any neurotic in the materia medica.

SPERMATORRHŒA.

- | | |
|------------------------------------|-------------------------|
| 1. Hygienic and dietetic measures. | 12. Digitalis. |
| 2. Lupulin. | 13. Belladonna. |
| 3. <i>Damiana</i> . | 14. Nitrate of silver. |
| 4. Conium. | 15. Cimicifuga. |
| 5. Bromide of potassium. | 16. Hydrate of chloral. |
| 6. Cold ablutions. | 17. Phosphoric acid. |
| 7. Quinia. | 18. Camphor. |
| 8. Strychnia. | 19. Cantharides. |
| 9. Arsenic. | 20. Capsicum. |
| 10. Iron, hydrastis. | 21. <i>Kava-kava</i> . |
| 11. Ergot. | |
-

STOMATIS.

- | | |
|---------------------------|----------------------|
| 1. Mineral acids. | 5. Nutrient enemeta. |
| 2. Chlorate of potassium. | 6. Hydrastis. |
| 3. <i>Eucalyptus</i> . | 7. Chloride of gold. |
| 4. Mucilaginous drinks. | |
-

SUNSTROKE.

- | | |
|---|-----------------|
| 1. Rest; loosening of dress; cool air. | 5. Digitalis. |
| 2. Stimulants. | 6. Belladonna. |
| 3. Depletion, (<i>in apoplectic cases</i>). | 7. Physostigma. |
| 4. Revulsives. | |
-

SYPHILIS.

- | | |
|-------------------|---|
| 1. Iodides. | 7. Guaiacum. |
| 2. Mercurials. | 8. Denutrition. |
| 3. Iron. | 9. Bichromate of potash. |
| 4. Cod-liver oil. | 10. <i>Berberis aquifolium</i> . (<i>See note.</i>) |
| 5. Stillingia. | 11. Fluoric acid. |
| 6. Gold. | 12. <i>Pulsatilla</i> , (<i>vide amaurosis</i>). |

- | | |
|--|--------------------------------------|
| 13. <i>Accitillo bark.</i> | 17. <i>Brassica.</i> (See note.) |
| 14. <i>Clematis erecta.</i> | 18. <i>Coca.</i> |
| 15. <i>Cascara amarga.</i> (See note.) | 19. <i>Rumex crispus.</i> |
| 16. <i>Kalmia latifolia.</i> (See note.) | 20. <i>Folia carobæ.</i> (See note.) |

DESCRIPTIVE NOTES.

Berberis Aquifolium.

Synonyms—"Barberry," holly-leaf barberry.

Habitat—The Pacific States.

Medicinal Portion—The root.

Botanical Details—Nat. Ord., Berberidaceæ. Family, Berberis. This shrub is indigenous to the Pacific slope, growing wild in the fields, and cultivated in the gardens. Its height averages four feet. The leaflets are seven or more, one being terminal, the others in pairs. Their color is a bright green, shining above; their length, two inches, ovate in shape, and dentate. The flowers are of a saffron-yellow, in racemes two inches long. The fruit is an acid globose berry, containing one or three seeds. The bark is of a dull yellow color. The floral season is May; fruitage in September.

It has been claimed by Orfilia that this drug is not a member of the Berberidaceæ, and he has given another than the received botanical description. The above is, however, verified by several observers.

Chemical Composition—That there is an alkaloid of berberis aquifolium, on which depends the action of the drug, has been nominated ever since it was first introduced. That there is a resident alkaloid, called mahonia, and that its formula is $C_{14}H_{19}NO_3$, has been demonstrated. But that mahonia is the active principle is not yet proven, though it is probable. Mahonia is a colorless salt, but past analyses have been so incomplete that it is not now known to be the only alkaloid. There is also present a resin, and, among other proximate elements, a peculiar acid, which acid is regarded as of little or no medicinal importance.

Physiological Properties—Its action is especially upon the vaso-motor system, and thus the functions of the glandular

organs are increased. In this way it becomes tonic, alterative, cathartic, diuretic, and diaphoretic. Its action on the liver is marked, but it has even attained to the fame of being termed an alterative!

Therapeutical Applications—*Berberis aquifolium* enjoys the reputation of being an "alterative,"—an ambiguous term meaning much, but obscure in its real signification. In so far as it is a tonic, it has an alterant power inter-dependent upon its fine character. High authority names its alterative powers marvelous, and there are those familiar with it who are not slow in saying that as a general tonic it has no superior. Certainly it is of coming ability, and stands close upon its lines. Illustrations of application are not wanting. In syphilis it is indirectly curative. It tones up the broken-down system, corrects the digestion, and relieves the state of constipation. It is advantageously combined with *cascara sagrada* for action of catharsis, and as an anti-syphilitic with iodide of potassium. In long-standing syphilis and especially in the secondary stage of the disease, it is particularly effective.

In cutaneous affections due to, or independent of syphilis, it has an excellent effect. Especially is this so in *rupia*, *psoriasis*, *eczema*, *herpes zoster*, *scurvy*, *acne*, *pityriasis*.

In *scrofula*, *berberis* has few equals, possessing as it does extreme catalytic powers. Bundy recommends it in *coryza* and *ozæna*. As an addition to the remedies employed in combating *leucorrhœa*, it has a positive value.

There will frequently come to the office of the general practitioner ladies who complain that the skin of the face is rough, unsightly, and unhealthy. There is no cutaneous disease, no *acne*, no pimples. Still they "look so," and want something done, so that they may regain comeliness. In such cases give *berberis*, and you will have a most grateful patient. It always "smoothes the skin."

There is another class of chronic patients whom we have occasion to meet, who experience relief under the use of *berberis*. These are the blue despondents, who bore us at all hours by rehearsing a list of woes and ills, and begging for "something to cleanse the blood." *Berberis* is just what they want, and although it does not cure laziness, it will brighten

up those who really want to gain new vitality. If the blood is in a disordered state, in berberis there will be found a well-worth of renovation. Its action is found not only in renewing the functions of the organs of assimilation, but as well in conveying impure material out of the blood. There is no extravagance in exalting a medicine that is antidotal to the syphilitic virus. That agent which robs syphilis of its virulent character should be powerful enough to rid a lesser poison from the blood. Thus all claims for the agent are well-grounded.

From time immemorial, any agent that purifies the blood and is curative of struma, has been looked up to as a "cure for cancer." Berberis early came to enjoy this pet reputation, and we find not only printed reports ascribing this virtue to the drug, but as well not a few reliable and not over-enthusiastic practitioners who believe that it does it. Marvellous cures are claimed for it, and it has been praised and petted to a great extent. Without disputing these claims, and without even attempting to show that the cases of cancer reputed cured were strumous, it remains to be said that carcinoma is benefitted by recovering to the system normal nutrition, and by removing from the blood impure material. In so far as it accomplishes this, berberis may be used for the treatment of cancer. In this measure it does notable work, and may be employed. But it is not the specific that some claim it to be.

Having considerable hepatic influence, berberis aquifolium becomes a remedy for icterus, and secondarily for that form of dyspepsia due to a disordered liver. It arouses the hepatic secretion, and is thus valuable in any and all diseases of the liver.

As a tonic, berberis is of value in phthisis pulmonalis, rheumatism, amenorrhœa, etc., but it has not a direct action. Much depends on uniform doses. I give of the fluid extract twenty drops three times a day as the usual dose in nearly all cases. In a case of erysipelas, when the results were very happy, the dose was twenty-five drops.

The author agrees with Dr. Bundy in holding that berberis aquifolium is not cathartic. *Per se* it will not cure constipation or relieve that state.

An English military song contains these words:

"The eye may be dazed at the glimmer
Of light on each levelled gun."

So of berberis aquifolium. Its glimmer may daze our eyes until we fail to see its true worth. Its study is yet to be had.

Cascara Amarga.

The author's plan in the writing of this work has been not to countenance a remedy until it has proved its title clear to its pretensions, and until its place has been distinctly marked out. Where there has been the chance of a doubt of any kind, discussion has been altogether left out, and several remedies for which much is claimed have not been noticed. Since the work has been taken in hand there has been placed in the market a new remedy, cascara amarga. I was inclined to omit notice of it until it had become better known; but I find that it is all that is claimed for it, and although we are not yet acquainted with it, I will give it the benefit of a notice.

Dr. Atkinson, of Baltimore, introduced the remedy to the profession in January, 1881. He reported that it had been previously used to some extent, and from his article, and from the experience of myself and others, I deduce the following details:

Medicinal Portion—The bark.

Official Appearance—The bark is of an ash-brown color, striated on the outer layer, having an average thickness of three lines. The pieces are four to six inches in length.

Habitat—Mexico.

Botanical Observations—Vasey is of the opinion that this tree is one of the species of the genus *Picramnia*. The leaves are of a dark-green color, ovate-lanceolate, and measuring two inches by one. The arrangement is alternate, with one leaf terminal.

Physiological Properties—Cascara amarga is antisyphilitic, tonic, alterative, diuretic, and diaphoretic.

Preparations—There is but one preparation,—Parke, Davis & Co's fluid extract; dose ℥ 30–3 j.

Therapeutical Applications—From observations had, I am obliged to believe that, though it is a drug of slow action, it is almost specific for syphilis. The remedy seems to eliminate the specific poison from the system. It is equally as good in chronic nephritis. Its alterative and diuretic properties give it value in ascites and other dropsical disorders. It is a drug in place in the materia medica, and there will remain.

Kalmia Latifolia.

Synonyms—Laurel, sheep laurel, rose laurel, kalmia.

Derivation of Name—Kalm, the Swedish botanist, gave his name to the shrub.

Habitat—In the rocky pastures of New England, and indeed in all sections in the United States, it is a common shrub.

Botanical Details—The kalmiæ are a small genus of American plants, and the mountain laurel is perhaps the best known of its species. It is a shrub, growing three to twelve feet high, and flowering in mid-summer. It is eminently a social shrub, growing in clumps. The stem is slender, of an ash-green color. The leaves are scattered, three inches long by one wide, double acute, of a polished green color, and a leathery texture. Flowers terminal and in bracts. Calyx five-cleft, green, with colored tips. Corolla monopetalous, pink or white, with a short tube, and five raised lobes. Stamens ten, with white filaments. Ovary round, green, hairy. Pistil club-shaped. Seeds are compressed and numerous.

Chemical Composition—Bullock's analysis gives a long list of ingredients, of which some of the principal are resin, tannin chlorophyll, albumen, and several earthy salts. It is not improbable that the alkaloid arbutin is present.

Medicinal Portion—The leaves.

Antagonists—The systemic emetics are to be used in poisoning by laurel.

Physiological Actions—Kalmia is an irritant poison in an over-dose. In doses of ten drops of a decoction made by infusing one ounce of leaves in eight ounces of water, diarrhœa has been cured. The same decoction, used topically, has proven efficacious in treatment of cutaneous diseases, and syphilis. Goss gives it internally in small doses for these disorders.

There may be a coming reputation for kalmia, but its virulency would suggest that it be used with caution. It will bear experimental research, but not until we know what it can do, should it be used to do anything. It requires caution in its use, and deserves study.

Brassica.

Synonyms—Cabbage, *crambé*.

Habitat—Cultivated in almost all parts of the world.

Botanical Classification—Nat. Ord., Cruciferae. Sex. Syst., Tetradynamia Siliquosa.

Therapeutical Applications—I have to say a good word for the cabbage. There are two uses to which this familiarly-known vegetable can be put, which in their essential connections are of no inconsiderable worth. As an application to simple or syphilitic ulcers, where the surface is foul and shreddy, cabbage-leaves have no equal. It is one of those old domestic remedies that will never be out-dated, and ever is commendable. Again, as forming a certain part of the dietetic treatment of constipation this humble vegetable is priceless. I would recommend the free use of boiled cabbage to patients habitually constipated. Laugh, if you like, but it is a "remedy" of importance.

Folia Carobæ.

Synonyms—Jacaranda procera.

Habitat—Brazil.

Medicinal Portion—The leaves.

Preparations—An unofficinal fluid extract; dose 3 j- $\bar{3}$ j.

Botanical Details—A tree of the Bignoniaceæ, attaining a height of thirty feet; flowers in red and white cymes; fruit a bivalved capsule containing many winged seed; leaves lanceolate, dark green above, and pale beneath, bipinatifid.

Chemical Composition—Garemba's analysis shows that a large number of ingredients exist. Among these are carobin, carobina, carobic acid, resin, tannin, wax, dextrin, malic and lactic acids, etc.

Physiological Properties—I have not had opportunity to study the mode of action. The drug is diuretic, sudorific and anti-syphilitic.

Therapeutical Value—As a remedy for syphilis, this agent is alterative, and of great merit. It is given in full doses. In skin diseases, salivation by mercury, and gonorrhœa, it is useful. Heide recommends it in rheumatism.

TÆNIA.

- | | |
|----------------------|---------------------------------|
| 1. Filix mas. | 9. Proper diet, and cathartics. |
| 2. Pomegranate bark. | 10. <i>Ulmus</i> . |
| 3. Koussou. | 11. <i>Areca</i> . |
| 4. Kameela. | 12. <i>Ailanthus excelsa</i> . |
| 5. Pepo. | 13. <i>Eupatorium</i> . |
| 6. Turpentine. | 14. <i>Boldo</i> . |
| 7. Syrup of ether. | 15. <i>Mikania guaco</i> . |
| 8. Pulvis stanni. | 1. <i>Cucurbita</i> . |

DESCRIPTIVE NOTES.

Cucurbita Citrullus.

Popular Synonym—Watermelon.

Botanical Place—Order, Cucurbitaceæ. Sexual System, Monœcia Monodelphia.

Medicinal Portion—Seeds.

Cucurbita Pepo.

Popular Synonym—Pumpkin.

Botanical Place—Order, Cucurbitaceæ.

Medicinal Portion—Seeds.

Chemical Composition—Watermelon and pumpkin seeds contain citrullic acid, citrullin, (?) sugar, oil and gum.

Physiological Properties—Diuretic and tæniacuge.

Therapeutical Applications—Pumpkin seed in emulsion, or the oil, is a most efficient agent for the treatment of tænia. It rarely ever fails. In irritative disorders of the urinary passages, and especially in stranguary, watermelon seed has been used with fine success. In the treatment of ascites the free use of watermelon seed is of no little advantage.

TETANUS.

- | | |
|---------------------|----------------------------------|
| 1. Strychnia. | 10. Lobelia. |
| 2. Chloral. | 11. Opium. |
| 3. Physostigma. | 12. <i>Apocynum cannabinum</i> . |
| 4. Bromides. | 13. Quinia. |
| 5. Tobacco. | 14. Ice. |
| 6. Warm baths. | 15. Conia. |
| 7. Gelsemium, | 16. Ether spray. |
| 8. Anæsthetics. | 17. <i>Hoang-nan</i> . |
| 9. Nitrite of amyl. | |

TONSILLITIS.

- | | |
|--------------------------------|--|
| 1. Iodine, (<i>locally</i>). | 8. Poultices. |
| 2. Iodide of potassium. | 9. Argenti nitras, (<i>topically</i>). |
| 3. Quinia. | 10. Tannin, (<i>topically</i>). |
| 4. Ice. | 11. Hydrochlorate of ammonia. |
| 5. Aconite. | 12. Hygienic measures. |
| 6. Mercury. | 13. Capsicum. |
| 7. Guaiac. | |

TRICHINIASIS.

- | | |
|-------------------|----------------|
| 1. Carbolic acid. | 3. Cathartics. |
| 2. Benzine. | |
-

TOOTHACHE.

- | | |
|----------------------------|--|
| 1. <i>Jamaica dogwood.</i> | 8. <i>Nitro-glycerine.</i> |
| 2. Opium. | 9. Collodion and carbolic acid, equal parts. |
| 3. Gelsemium. | 10. <i>Coto.</i> |
| 4. Xanthoxylum. | 11. <i>Chaulmoogra oil.</i> |
| 5. Creosote. | 12. <i>California laurel.</i> |
| 6. Tannin. | 13. <i>Menthol.</i> |
| 7. Alum. | |
-

TYPHLITIS.

- | | |
|---------------------------|------------------|
| 1. Opium. | 4. Mild diet. |
| 2. Ice-bags. | 5. Cataplasmata. |
| 3. Sulphate of magnesium. | 6. Laxatives. |
-

TYPHOID FEVER.

- | | |
|--------------------------|-------------------------------------|
| 1. Alcohol. | 12. Beef tea. |
| 2. Milk. | 13. Wine. |
| 3. Quinia. | 14. Turpentine. |
| 4. Calomel. | 15. Nitro-hydrochloric acid. |
| 5. Carbonate of ammonia. | 16. Carbonic acid. |
| 6. Digitalis. | 17. Sinapisms. |
| 7. Verat. viride. | 18. Opium. |
| 8. Mineral acids. | 19. Hygienic and dietetic measures. |
| 9. Cold and tepid baths. | 20. Muriatic and nitric acids. |
| 10. Aconite. | 21. <i>Eupatorium.</i> |
| 11. Mild cathartics. | |

URÆMIA.

- | | |
|--------------------------|--------------------|
| 1. Transfusion. | 5. Digitalis. |
| 2. Morphia. | 6. Hydrotherapy. |
| 3. Hydragogues; salines. | 7. <i>Manacé</i> . |
| 4. Colchicum. | |
-

UTERINE CATARRH.

1. Nitrate of silver, (*application*).
-

VERTIGO.

- | | |
|-----------------------------------|---|
| 1. Prophylaxis; removal of cause. | 2. Measures addressed to cerebral congestion. |
|-----------------------------------|---|
-

VARIOLA.

- | | |
|---|--|
| 1. Quinia. | 8. Tincture of iodine, (<i>ectrotic measure</i> .) |
| 2. Supporting treatment. | 9. Mild mercurial ointment, (<i>ectrotic measure</i> .) |
| 3. Cream of tartar. | 10. Collodion, (<i>ectrotic measure</i> .) |
| 4. Mineral acids. | 11. Bismuth and chalk, (<i>ectrotic measure</i> .) |
| 5. Ice water. | 12. Poultices, (<i>ectrotic measure</i> .) |
| 6. Evacuation of vesicles, (<i>ectrotic measure</i> .) | 13. Carbolic acid, (<i>ectrotic measure</i> .) |
| 7. Argenti nitras, (<i>ectrotic measure</i> .) | 14. Hygienic measures. |

VOMITING.

- | | |
|--------------------------|-----------------------|
| 1. Arsenic. | 9. Removal or cause. |
| 2. Capsicum. | 10. Bromides. |
| 3. Sulphites. | 11. Hydrastis. |
| 4. Champagne. | 12. Hydrocyanic acid. |
| 5. Milk and lime water. | 13. Quinia. |
| 6. Nutrient enemata. | 14. Nux vomica. |
| 7. Carbonate of ammonia. | 15. <i>Guarana</i> . |
| 8. Chloroform. | |

VOMITING OF PREGNANCY.

- | | |
|---------------------------------------|---------------------------|
| 1. <i>Adruc.</i> (<i>See note.</i>) | 12. Ingluvin. |
| 2. Bismuth. | 13. Lime water. |
| 3. Tincture of iodine. | 14. Carbonate of ammonia. |
| 4. Pepsin. | 15. Sulphites. |
| 5. Arsenic. | 16. Chloroform. |
| 6. Nux vomica. | 17. <i>Ipecacuanha</i> . |
| 7. Atropia. | 18. Hydrastis. |
| 8. Cupri sulphas. | 19. Capsicum. |
| 9. Acid. hydrocyanicum. | 20. Quinia. |
| 10. Columbo. | 21. <i>Verba buena</i> . |
| 11. Champagne. | |

DESCRIPTIVE NOTES.

Adruc.

Synonyms—*Cyperus articulatum*.

Habitat—The Antilles.

Botanical Details—Nat. Ord., Cyperaceæ. Rhizoma knobbed; stem round, articulated and glabrous; clusters of spikelets in umbels; involucre scaly; glumes lanceolate and blunt; stamens three; eachnium trigonal.

Physical Properties—Rhizoma red, and having a grateful odor. They come to market in matted bulk.

Preparations—Unofficial. Fluid extract; dose, 3 ss. Decoction and infusion.

Physiological Action—Adrue is anti-emetic, stomachic.

Therapeutic Applications—Adrue is of surprising worth in checking emesis, be it the vomiting of pregnancy, of yellow fever, or indigestion. It is enthusiastically termed "a drug that needs no synergist."

WORTHLESS REMEDIES.

Chian Turpentine.

Remarks—I do not know of a remedy that deserves to stand in the precedence of Chian turpentine as a fraud. The question that has been raised is a question of reference: Will it cure cancer? Eminent men have answered in the affirmative, and not a few of these have changed their opinions; others have spoken an emphatic *No*, and thus believe. Prof. Clay, disciple of reform in medicine, is one who has not changed. He has recently republished his experience, setting forth the value of the remedy; but other and unbiased authorities as decidedly speak of it as valueless. What shall we say? Is it valuable or valueless? I can give but one answer: Chian turpentine preserved for many years in the pots of the pharmacist may be useful for cancer, but the Chian turpentine of our day is a degenerate article and without curative effect!

Dyospyros Kaki.

Remarks—The Dyospyros kaki has not sustained its first-written reputation, and is noticed here not because it has any value, but to present its comparative record.

Synonyms—Japanese persimmon.

Habitat—China and Japan.

General Description—A tree, 40–50 feet high; fruit, a bright yellow; other details wanting.

Physiological Action—The bark of the root "vitalizes the mucous membranes." Other properties are noted below.

Therapeutical Applications—It was claimed that kaki would cure a long list of diseases, of which the following named are a few: Dyspepsia, dysentery, typhoid fever, aphthæ, catarrhal disorders prostaticitis, etc. On extended trial it has been found that the drug is a first-class disappointment, and one performing none of the remarkable cures ascribed to it.

Aranea Tela.

Synonyms—Aranea, cobweb, spider's web.

Therapeutical Applications—Therapeutics have taken a mighty stride of advance since the time of Dioscorides, who held that a plaster of spiders was prophylactic of intermittent fever. But latterly some self-styled practitioners have reported that this disease is curable by cobwebs in tincture! We do not welcome back the days of Dioscorides. Cobwebs may cure or prevent ague, but we have preferable remedies. As a styptic it is of some value, but as an antiperiodic—shades of the Greeks, begone!

Melilotus Alba.

Common Name—Sweet clover.

Remarks—A Dr. Bowen has recommended sweet clover for "headache." I have taken some pains to investigate the matter, and consider the clover medicinally useless.

WOUNDS.

- | | |
|------------------------|---|
| 1. Arnica. | 10. Zinc salts. |
| 2. Hot water dressing. | 11. Turpentine. |
| 3. Alcohol. | 12. Carbolic acid. |
| 4. Collodion. | 13. <i>Simaba cedron</i> , (if wound by serpents or insects). |
| 5. Cataplasmata. | 14. Salicylic acid. |
| 6. Lactuacarium. | 15. Boracic acid. |
| 7. Lead. | 16. <i>Alnus rubra</i> . |
| 8. Nitric acid. | 17. Marigold (see note.) |
| 9. Nitrate of silver. | |

DESCRIPTIVE NOTES.

Marigold.

Synonyms—*Calendula Officinalis* *C. sativa*.

Habitat—Cultivated in every garden.

Medicinal Portion—The leaves and flowers.

Preparations—Extract, tincture, infusion.

Botanical Details—A well-known plant of the family *Lynantheriæ*.

Active Principle—A substance known as calendulin, which may be analogous to bassorin.

Therapeutical Applications—Not in the least inferior to arnica to prevent excessive inflammation of a simple wound, marigold in tincture or fluid extract demands for itself a place for itself in surgical therapeutics. By contracting the arterioles it prevents undue circulation in the part, and is of a certain value. There have been other uses for the drug, but all are non-consequential in comparison. The fresh plant bruised, and applied to the wound is of great worth as its preparations.

Wormwood.

Synonyms—Absinthium, *Artemesia absinthium*.

Habitat—Europe. Cultivated in America.

Botanical Details—Order, *Anteraceæ* (?) Sexual System, *Lyn-genesia Superflua*; stems 2 feet high, clustered; leaves petio-late, 2-3 inches long; mutifid; florets, yellowish.

Chemical Composition—Wormwood yields a volatile oil, a peculiar acid, and a salt, starch, albumen, etc.

Physiological Properties—Wormwood is a tonic, its active principles being readily diffused into the system. It is also anthelmintic, and externally discutient.

Therapeutical Applications—The most important use to which wormwood is put, is its application as a fomentation to bruises, sprains, etc. In this connection it is stated that it is antiseptic. Its efficacy as a tæniacuge has been questioned, although it is not infrequently employed. Among many diseases for which it was formerly used, prominent was intermittent fever, but it is not now allowed a claim.

Toxical Properties—The French make a bitter liquor called absinthe, which in overdoses produces toxical effects.

APPENDIX.

SINCE completing the text of this work, there have come to me from several correspondents answers to an open letter published in the July number of the *Therapeutic Gazette*, requesting information as to any *new remedies* properly so-called. From these responses considerable valuable matter has been collated, and is presented in this appendix. Several remedies are thus presented for the first time, and additional information in reference to some remedies already named is given. Thanking my correspondents for these favors, I present this appendix upon their authority.

ADDITIONAL TESTIMONY.

Manaca.

Dr. David Wark, of New York, reports two cases of muscular rheumatism cured by manacá. He also refers to a case of gonorrhœal rheumatism successfully treated by the same remedy.

Evening Primrose.

A Kansas gentleman writes me that this remedy is one "most valuable," and is fast gaining ground as a true substitute for *Cenothera biennis*.

Sabbatia Campestris.

Dr. Newlon, of Kansas, writes me that in his experience *sabbatia campestris* is a tonic to the alimentary tract, and is reputed a promoter of digestion. His experience is that it cures intermittent fever in "some forms."

Jamaica Dogwood.

Dr. Hugo Erichsen, of Detroit, writes me that Jamaica dogwood has been found by him useful in neuralgia of the intestines, commencing with mxxv ter die, gradually increasing to mjl . The same gentleman recommends its hypnotic qualities as serviceable in mania. Dr. Erichsen, who has written a valuable paper on quinia as an antiseptic, is logical in his deductions.

Duboisia.

I have before me the report of a case of poisoning by this drug, kindly furnished me by Dr. Hugo Erichsen. The patient was a lady, æt. 56, into whose eyes, to prevent adhesion of the lens, one drop of a one per cent. solution of duboisia was instilled. Symptoms were unsteady gait, a weak and slow pulse, low muttering delirium, difficult deglutition, dryness of the mucous membrane of the œsophagus and pharynx, and great depression. The treatment embraced administration of strong coffee, the patient being kept on her feet. The last item to disappear was the visual disorder characteristic of this mydriatic.

Rhus Aromatica.

Dr. J. T. McClanahan, the prime introducer of rhus aromatica, has handed me a pamphlet in which he gives a résumé of his experience with and knowledge of the drug. Though received since the writing of the article on rhus aromatica, I find that the substance of Dr. McClanahan's paper is incorporated there.

Coca.

Clement Markham, in his recent work on "Peruvian Barks," says coca is valueless if kept longer than seven months. Such is the Indian's faith in the leaf that the dying man believes if he can but taste it his future bliss is assured. This author regards it as the least injurious of its class of stimulants.

ASTHMA.**Helianthella Tenuifolia.**

Botanical Order—Compositæ. The stem is annual from a perennial root.

Chemical Items—Alcohol extracts the virtues of the drug, The medicinal principle is a resinoid.

Physiological Action—Expectorant, mildly antispasmodic and aromatic.

Position—Unofficinal.

Medical Portion—The root.

Therapeutical Applications—Dr. Newlon writes me that he has used a syrup of the root "very frequently and always with benefit," for coughs and colds. In its application to the treatment of asthma, this drug is peculiarly successful.

BRONCHIAL DISORDERS.

Elephantopus Tomentosus.

Botanical Order—Compositæ. An annual.

Position—Unofficinal.

Medical Portion—Stems and leaves.

Preparations—Fluid extract and a syrup.

Therapeutical Applications—Dr. W. S. Newlon, of Oswego, Kansas, advises me that he has used this herb as an expectorant, emetic, and diaphoretic with good success. Its use in the treatment of bronchial disorders will doubtless come to be diffused as soon as the drug is better known.

DIARRHŒAL DISORDERS.

1. *Baptisia Leucophæa*. (See note.)

2. *Amorpha Canescens*. (See note.)

DESCRIPTIVE NOTES.

Baptisia Lencophœa.

Synonym—*B. Leucantha*. (?)

Botany—Natural Order, Leguminosæ. Known as "wild indigo," and allied to *B. tinctoria*.

Habitat—Western States.

Medical Position—Used for the same purposes, and possessing the same properties as *B. tinctoria*.

Amorpha Canescens.

Common Synonym—Lead plant.

Medicinal Portion—Bark of root.

Botany—Natural Order—Leguminosæ.

Property—Powerfully astringent.

Preparations—(Unoffic.) Fluid extract; dose, 3 ss.

Therapeutical Applications—This drug is a remedy for diarrhœa, proving beneficial in some of the worst phases of that disease. It is always indicated when an astringent is called for.

FEVERS. (*In General*.)

1. *Soap-berry*. (*See note*.)

2. *Rhamnus Lanceolatus*. (*See note*.)

3. *Sierra Savia*. (*See note*.)

DESCRIPTIVE NOTES.

Soap Berry.

Synonym—*Sapinelus marginatus*.

Habitat—Southern States.

Natural Order—Sapindaceæ.

Medicinal Portion—The berries and bark.

Physiological Properties—Simple bitter, tonic, and possibly antiperiodic.

Preparations—Fluid extract (unoffic.;) dose 3 ss-j.

Therapeutical Applications—Similar to that of hydrastis. Has been used for intermittent fever.

Rhamnus Lanceolatus.

Habitat—Reported found in Kansas.

Botany—Natural Order, Rhamnaceæ.

Medicinal Portion—The root.

Property—An intensely bitter taste.

Therapeutical Applications—This species of rhamnus is tonic and alterative. Its use in convalescence of fevers is indicated.

Sierra Salvia.

Botany—A member of the sage family. Other botanical history is wanting. It is hardy, perennial and in isolated clusters. Leaves are fern-like, dentate and composite; arranged in tufts on the ground and stem; flowers yellowish; main root eight or ten inches long; height of plant, ten inches.

Habitat—The *mesas* of the California foot-hills in dry places, and frequently at high elevations.

Physiological Action—The taste of the root is slightly ruminic. The leaves have a bitter, though sagy taste. A strong infusion causes sleep and free diaphoresis, which is succeeded by a refreshing sensation. Diffusion is free and active.

Therapeutical Applications—Dr. A. Comstock, of Colorado, introduces the remedy. His first use of it was in treating himself in April, 1880, for "mountain fever," which malady he describes as a miscegenation of spinal-meningitis, with remittent rheumatic fevers. It was a grand success. He reports that the Mexicans of Colorado have used it for centuries for local fevers, colds, exhaustion, and dipsomania.

Preparations—This drug has only very recently been introduced, and is as yet upon the market in limited quantities.

GENERAL DEBILITY.

- | | |
|---|---|
| 1. <i>Hieracium Gronovia</i> . (See note.) | 4. <i>Hedeoma Hispida</i> . (See note.) |
| 2. <i>Beard-Tongue</i> . (See note.) | 5. <i>Salvia Lanceolatas and Pitcheri</i> . |
| 3. <i>Pycnathemum Lanceolatum</i> . (See note.) | (See note.) |
| | 6. <i>Gentiana Puberula</i> . (See note.) |

DESCRIPTIVE NOTES.

Hieracium Gronovia.

Botany—Natural Order, Compositæ.

Habitat—Western States.

Bibliography and Reference—The author presents the name of this drug on the authority of Dr. J. H. Oyster, who praises it as a tonic alterative. This is the only reference to the drug with which I have met.

"Beard Tongue."

Remarks—This is a Western plant of the order Scrophulariaceæ. Its action is alterative, cathartic and anthelmintic. I have never seen any account of this drug, or had any experience with it. The authority for naming it is Dr. J. H. Oyster.

Pycnathemum Lanceolatum.

Botany—A member of the natural order Labiataæ, growing in Kansas and the far west.

Physiological Properties—This drug is a mild tonic, having an aromatic taste and odor.

Therapeutical Applications—Nominated for the treatment of general debility.

Hedeoma Hispida.

Botany—Member of order Labiatae; family relation of *H. pulegoides*.

Physiological Properties—Diaphoretic, aromatic and stimulant.

Therapeutical Applications—Some as those of *H. pulegoides*.

Salvia Lanceolata and Pitcheri.

Remarks—These are two plants of the natural order Labiatae. Their physiological effects are those of a tonic and stimulant. A fluid extract is prepared, and is given in doses of ʒ i-ss.

Gentiana Puberula.

Remarks—A gentian growing quite abundantly in the West. Although it is not defined as an antiperiodic, it is in all cases like in action to *G. quinqueflora*. In all the worth of the word it is a tonic, and the diseases for which it is indicated are made self-evident by that title.

SERPENT BITES.

1. *Eryngium Yuccæfolium*. (See note.) 2. *Anda Acu*. (See note.)

DESCRIPTIVE NOTES.**Eryngium Yuccæfolium.**

Botany—Natural Order, Umbelliferæ. Said to be a common Kansas plant. More than this I do not know of the drug's botany.

Therapeutical Action—Dr. J. H. Oyster, of Paola, Kansas, writes me that this drug is an antidote for serpent bites, and states that he has called repeated attention to it. He says: "I recommend the root to be boiled in sweet milk, and to be used in such quantities as the stomach will stand (bear), and also wash the bitten part with it."

Anda Acu.

Remarks—The oil of anda acu is aperient and non-irritant. It may not cure serpent bites; it is a substitute for castor oil, which is certainly fame enough for any one remedy!

INDEX OF DISEASES.

A ortion	10
Acidity of Stomach	11
Acne	11
Adenitis	14
Albuminuria	16
Alcoholismus	16
Amaurosis	22
Amenorrhœa	24
Anæmia	29
Angina Pectoris	36
Aphonia	39
Aphthæ	39
Apoplexy	41
Ascarides	42
Ascites	43
Asthma	61
Aneurism	67
Agalactia	67
Arthritis	67
B oils and Carbuncles	67
Bronchial Diseases	68
Biliary Calculi	73
Biliousness	73
Bunions	74
Bronchocele	74
Bladder, Diseases of the	74
Burns	75
C ancer	76
Chillblains	76
Chorea	76
Cardiac Diseases	77
Catalepsy	77
Cerebral Diseases	77
Cephalalgia	77
Constipation	78
Cutaneous Diseases	85
Colic	90

Croup	90
Catarrh, Nasal.....	90
Chicken-pox.....	90
D iphtheria.....	91
Diabetes.....	91
Diarrhœal Disorders.....	92
Dyspepsia.....	105
E mpysema.....	109
Empyema.....	109
Epistaxis.....	109
Epilepsy.....	109
F evers.....	110
G angrene.....	110
Gastralgia.....	110
Gastric Catarrh.....	111
Gastric Ulcer.....	111
Gonorrhœa.....	111
Gout.....	115
H emorrhage.....	115
Hepatic Disorders.....	117
Hiccough.....	117
Hydrophobia.....	118
Hysteria.....	119
Hypochondriasis.....	119
I mpotence.....	119
Icterus.....	120
Insomnia.....	120
Intermittent Fever.....	120
Incontinence of Urine.....	132
Invagination.....	132
Influenza.....	133
K idneys, Diseases of the.....	133
L aryngitis.....	133
Laryngismus Stridulus.....	135
Lead Poisoning.....	136
Leprosy.....	136
Leucocythæmia.....	140
Leucorrhœa.....	140
Locomotor Ataxia.....	141
M eningitis.....	141
Meningitis, Cerebro-spinal.....	141
Mercurialismus.....	142

Metritis.....	142
Mollities Ossium.....	142
Myalgia.....	142
Myelitis.....	142
Mumps.....	143
Muscular Spasm.....	143
Mydriasis.....	143
N ævi.....	145
Necrosis.....	145
Narcosis.....	145
Nymphomania.....	146
Neuralgia.....	146
O besity.....	156
Œdema.....	157
Œdema Glottidis.....	157
Onychia.....	157
Orchitis.....	157
Ozæna.....	157
Oxytocics.....	158
Oxaluria.....	160
P aralysis.....	160
Peritonitis.....	161
Pertussis.....	161
Pleuritis.....	162
Pneumonia.....	162
Pulmonary Phthisis.....	163
Prostrate, Hypertrophy of.....	163
Pruritis Vulvæ.....	163
Pyæmia.....	163
Pyrosis.....	164
R enal Calculi.....	164
Rachitis.....	165
Ringworm.....	166
Roseola.....	166
Rheumatic Arthritis.....	166
Rheumatism.....	166
Rubeola.....	169
S carlatina.....	169
Serpent Bites.....	170
Scrofula.....	172
Sciatica.....	173
Sprains.....	173
Spleen, Diseases of the.....	173
Sea Sickness.....	173

Sick Headache.....	173
Spermatorrhœa.....	175
Stomatitis	175
Sunstroke.....	175
Syphilis	175
T ænia.....	182
Tetanus	183
Tonsillitis	183
Trichiniasis	184
Toothache	184
Typhliis.....	184
Typhoid Fever.....	184
U ræmia.....	185
Uterine Catarrh.....	185
V ertigo	185
Variola	185
Vomiting	186
Vomiting of Pregnancy.....	186
W orthless Remedies.....	187
Wounds	188
Appendix	191

INDEX OF REMEDIES.

A chillea.....	28
Actea Spicata.....	82
Æsculus Hippocastanum.....	151
Adruc.....	186
Ailanthus Excelsa.....	99
Ailanthus Glandulosa.....	98
Ajuga.....	26
Alisma Plantago.....	118
Aletris.....	32
American Arbor Vitæ.....	54
American Agave.....	82
Antenaria Margaritacea.....	71
Antirrhinum Linaria.....	58
Aranæ.....	188
Areca Nuts.....	93
Arum Triphyllum.....	72
Apocynum Cannabinum.....	43
Asclepias Syriaca.....	66
Asclepias Curassavica.....	116
Asparagus.....	59
Avena.....	84
Agrimony.....	15
Alnus Rubra.....	14
Avens.....	103
Abies Canadensis.....	103
B rassica.....	181
Berberis Aquifolium.....	176
Bearsfoot.....	168
Benzoin Odoriferum.....	127
Boldo.....	112
Blood.....	30
Belæ Fructus.....	104
Burdock Bark.....	87
Buckeye Bark.....	81
C ascara Sagrada.....	78
Caltha.....	68
Cactus Grandiflora.....	41

Cereus Bonplandii.....	37
Cereus McDonaldii.....	38
Coptis.....	40
Ceanothus.....	39
Carrot.....	58
Cassia Fistula.....	83
Cercis Canadensis.....	95
Coto Bark.....	104
Capsicum.....	19
Coca.....	17
Clematis Erecta.....	15
Caper.....	25
Calamus.....	107
California Laurel.....	152
Cephalanthus.....	127
Carbazotate of Ammonium.....	126
Chiretta.....	125
Corn Silk.....	165
Cascara Amarga.....	179
Cucurbita.....	182
Chian Turpentine.....	187
D amiana.....	26
Diospyros Kaki.....	187
Duboisia.....	143
Dulcamara.....	88
Dita.....	128
Dracontium.....	161
E pigea Repens.....	56
Euonymus.....	60
Eupatorium.....	108
Eugenia Cheken.....	107
Euphorbia.....	50
F igwort.....	172
Folia Carobæ.....	181
Fel Bovinum.....	16
Fucus Vesiculosus.....	156
Five-Flowered Gentian.....	121
G oa Powder.....	11
Grindelia Robusta.....	65
Grindelia Squarrosa.....	125
Guarana.....	174
Gynocardia Odorata.....	136
Gonania.....	113
Gurjun Balsam.....	112

H amamelis Virginiana.....	97
Hedeoma	23
Helonias Dioica.....	29
Horse Radish.....	167
Hydrangea.....	164
Hoang-Nan	139
Helianthus Annus.....	131
Hair Cap Moss.....	51
I ndian Blackroot.....	83
J aborandi	44
Jamaica Dogwood.....	146
Juglans.....	80
K almia Latifolia	180
Kava-Kava.....	21
L ippia Mexicana.....	69
Life-Everlasting	87
M arigold.....	189
Melilotus Alba.....	188
Mikania Guaco.....	171
Manacá.....	167
Menthol	152
Mango.....	100
Mullein.....	100
Mistletoe.....	64
M oose-wood.....	40
Manzanita	74
Malt	33
N itro-Glycerine.....	36
O robancha Virginiana.....	116
Oenothera Biennis.....	89
Oryza Sativa.....	101
Oenanthe Phellandrium	72
P arsley.....	24
Pulsatilla	22
Petroleum	70
Petroleum Products.....	88
Paw-Paw	65
Plantago Major.....	53
Purslane.....	57
Paraguay Tea.....	105
Penthorum Sedoides.....	131
Populus.....	124

Q uebracho.....	61
R anunculus Acris.....	69
Rhododendron Maximum.....	169
Rhus Aromatica.....	91
Rhus Glabrum.....	135
Rossolis.....	64
Rubus.....	96
Rumex Crispus.....	12
S abal Serru'ata.....	154
Shepherd's Purse.....	52
Sambucus.....	55
Spirea.....	95
Scutellaria.....	150
Sarracenia Flava.....	113
Sumbul.....	102
Simaba Cedron.....	170
Sage.....	134
Sabbatia Stellaris.....	126
Sabbatia Elliottii.....	132
Syringa Vulgaris.....	99
T onga.....	154
Triticum Repens.....	75
U lmus.....	85
Urtica Dioica.....	53
Ustilago Maidis.....	158
V iburnum Prunifolium.....	10
Virginia Creeper.....	57
W ormwood.....	189
X anthium Spinosum.....	118
Y erba Buena.....	42
Yerba Reuma.....	114
Yerba Santa.....	65

